RESPONSE TO OBR PROJECT ISSUES CHECKLIST
LATEST DATE OF JULY 3, 2019,
PROJECT NUMBER # PD\$2016-TM-5615,
PD\$2016-MUP-16-012, PD\$2016-MUP-16-013
BY COUNTY OF SAN DIEGO

PREPARED FOR OCEAN BREEZE RANCH 5820 WEST LILAC ROAD BONSALL, CALIFORNIA 92003

W.O. 6960-A7-SC JULY 29, 2019



### Geotechnical • Geologic • Coastal • Environmental

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July 29, 2019

W.O. 6960-A7-SC

#### **Ocean Breeze Ranch**

5820 West Lilac Road Bonsall, California 92003

Attention: Mr. Jim Conrad

Subject: Response to OBR Project Issues Checklist, Latest Date of July 3, 2019,

Project Number# PDS2016-TM-5615, PDS2016-MUP-16-012, PDS2016 -

MUP-16-013, by County of San Diego.

References: 1. "Project Name: Ocean Breeze Ranch, Project Number PDS2016-TM-5615, PDS2016-

MUP-16-012, PDSD2016-MUP-16-013, Planning & Development Services (PDS) Planning

and CEQA Comments," latest date of July 3, 2019, by County of San Diego

2. "Addendum to the Percolation Feasibility Study, Planning Area 3 of Ocean Breeze Ranch,

Including Residences R7 and R8, and Barn B9, Community of Bonsall, San Diego County,

California," W.O. 6960-A6-SC, dated May 17, 2019, by Geosoils, Inc.

3. "Percolation Feasibility Study, Planning Area 3 of Ocean Breeze Ranch, Including Residences R7 and R8, and Barn B9, Community of Bonsall, San Diego County, California,"

W.O. 6960-A6-SC, dated May 6, 2019, by Geosoils, Inc.

### Dear Mr. Conrad:

In accordance with the request of Mr. Pete Fagrell, this summary report presents the responses to the subject checklist, prepared by the County of San Diego. The scope of our services has included a review of the referenced documents, performance of a additional drilling to satisfy County review comments, analysis of data, and preparation of this response narrative. For convenience, portions of the Checklist are reproduced below, *in italics*, followed by our response.

### **REVIEW RESPONSE**

### Review Comment No. 1-10.

DEH has reviewed the Percolation Feasibility Study and the subsequent Addendum to the Percolation Feasibility Study for the proposed Subdivision that were received by PDS on 4/24/19. The following items must be addressed before DEH can recommend approval of the project.

### Response to Comment No. 1-10.

Acknowledged.

### Review Comment No. 1-11.

The groundwater borings (GW1-GW11) completed as part of the percolation testing were drilled between 4/16/19 and 4/19/19. All these excavations were backfilled on the day that they were drilled, according to the boring logs provided. The excavations at GW3 and GW9 indicate that water seepage zones were encountered at 7'-8'. None of the excavations had piezometers installed for the purposes of groundwater monitoring. The Percolation Feasibility Study indicates that groundwater levels during March 2014 were encountered at 13.5' to 15.5' below existing grade along the northern edge of PA-3. Groundwater measurements at those levels, following a three-year period of below normal precipitation, are concerning. The rainfall totals (July1-June 30) for the Fallbrook station were shown to be 10.27" for 2011-2012, 8.35" for 2012-2013, and 6.99" for 2013-2014. All well below the 14.13" average reading. DEH requests that piezometers be installed to a depth of at least 20' at the lowest proposed elevations for the primary/reserve leach field areas at B9, R7, R8 and parcels 382, 394 and 395. The applicant should notify DEH once these have been installed so that measurements can be taken.

### Response to Comment No. 1-11.

Six (6) borings (see the Appendix) were advanced within Planning Area 3 of the site, in the vicinity of the proposed R7, R8, and B9 leach fields, as well as parcels 382, 394 and 395, and were extended to depths of ranging from about 14½ feet (refusal) to 22 feet below existing grade for the installation of piezometers, and DEH was notified. The groundwater data is summarized in the following table, and the locations of the borings are shown on re-revised Plates 1 and 2.

| LOCATION/TOTAL DEPTH (FT)       | B-1<br>@ B-9 Shop/<br>19¾' TD | B-2 @R7/<br>14½' TD | B-3 @ R8<br>22'TD | B-4 @<br>Lot 395<br>19¾' TD | B-5 @<br>Lot 394<br>20'TD | B-6 @<br>Lot 382<br>20 TD |
|---------------------------------|-------------------------------|---------------------|-------------------|-----------------------------|---------------------------|---------------------------|
| APPROX. BORING ELEVATION (FT)   | 204.00                        | 204.00              | 206.00            | 212.00                      | 229.00                    | 266.00                    |
| WATER DEPTH (FT)<br>7-18-19     | 14.75                         | 12.00               | 13.00             | 12.50                       | -                         | -                         |
| WATER ELEVATION (FT)<br>7-18-19 | 189.25                        | 192.00              | 193.00            | 199.50                      | -                         | -                         |
| WATER DEPTH (FT)<br>7-19-194    | 14.75                         | 12.00               | 12.75             | 12.50                       | -                         | -                         |
| WATER ELEVATION (FT)<br>7-19-19 | 189.25                        | 192.00              | 193.25            | 199.50                      | -                         | -                         |

| LOCATION/TOTAL DEPTH (FT)                   | B-1<br>@ B-9 Shop/<br>19¾' TD | B-2 @R7/<br>14½' TD    | B-3 @ R8<br>22'TD     | B-4 @<br>Lot 395<br>19¾' TD | B-5 @<br>Lot 394<br>20'TD | B-6 @<br>Lot 382<br>20'TD |
|---|-------------------------------|------------------------|-----------------------|-----------------------------|---------------------------|---------------------------|
| FINAL WATER DEPTH (FT)<br>7-27-19           | 14.75                         | 12.25                  | 11.25                 | 12.25                       | -                         | -                         |
| FINAL WATER ELEVATION (FT)<br>7-27-19       | 189.25                        | 191.75                 | 194.75                | 199.75                      | -                         | -                         |
| LOWEST PERCOLATION BOTTOM<br>ELEVATION (FT) | 200.00                        | 200.00                 | 202.00                | 208.00                      | 225.00                    | 262.00                    |
| NOTES                                       | >5 FEET<br>Separation         | > 5 FEET<br>Separation | >5 FEET<br>Separation | >5 FEET<br>Separation       | No<br>GW                  | No<br>GW                  |

### Review Comment No. 1-12.

The proposed leach field area shown for R8b is directly adjacent to the water line easement. Revise the leach field location to allow for the 25' setback from the water line or 10' from the easement, whichever is greater.

### Response No. 1-12.

Acknowledged. The revised location of the leach field is shown on re-revised Plate 2.

### Review Comment No. 1-13.

The Percolation Feasibility Study (page 8) suggests 200' of leach line for B9(Shop) in the table at the top of the page. A commercial criteria design for B9 that would require 20' of leach line is suggested in the table at the bottom of page 8. The percolation test report on Plate C-18 suggests 300' of leach line be applied for B9. DEH cannot support the commercial but can support the other two designs. Please clarify which design is to be used.

### Response No. 1-13.

Assuming that the structure will be a barn/shop with a bathroom and a sink, then 200 feet of leach line is satisfactory, from a geotechnical viewpoint.

### Review Comment No. 1-14.

The Percolation Feasibility Study (page 8) mentions 200% reserve area requirements which are no longer required since the adoption of the LAMP in 2015. All proposed leach field designs require 100% reserve area only. Minimum lot sizes are no longer applied for lots with percolation rates over 60MPI.

### Response No. 1-14.

### Acknowledged.

The opportunity to be of service is sincerely appreciated. If you should have any questions, please do not hesitate to contact our office.

Respectfully submitted

GeoSoils, Inc.

GOODS GOODS Engineering Geologist, CEG 1340

Certified Engineering Geologist

Civil Engineer, REC 4785

JPF/DWS/jh

Attachments: Appendix - Boring Logs

Re-Revised Plate 1 - Potential Leach Field Map PA-3

Re-Revised Plate 2 - Potential Leach Field Map Building Sites R7, R8, B9

Distribution: (1) Addressee (email)

(4) Helios Property Solutions LLC, Mr. Peter Fagrell (wet sign/stamp & email)

# APPENDIX BORING LOGS

|   | UNIFIED   | SOIL CL  | ASSIFIC <i>I</i>   | СО  | NSISTEN  | ICY OR RE  | LATIVE DENSITY    |   |                     |   |  |
|---|---|--|--|---|--|------------|-------------------|---|---------------------|---|--|
|   | Major Divisior  | ıs   | Group<br>Symbols   |   | Typical Names  |            |                   |   | CRITER              | RIA   |  |
|   | ve  | an<br>els                                      | GW   |   | graded gravels and<br>I mixtures, little or no   |            |                   | Sta                                     | andard Penetra      | ation Test  |  |
| e-Grained Soils<br>retained on No. 200 sieve                    | Gravels<br>50% or more of<br>coarse fraction<br>retained on No. 4 sieve | Clean<br>Gravels                               | GP   |   | oorly graded gravels<br>el-sand mixtures, litt<br>fines  |            |                   | Penetration<br>Resistance<br>(blows/ft) | e N                 | Relative<br>Density                                 |  |
| soils<br>No. 20   | Gra<br>50% or<br>coarse<br>tined o                                      | Gravel<br>with                                 | GM   | Si  | lty gravels gravel-sar<br>mixtures   | nd-silt    |                   | 0 - 4                                   |                     | Very loose  |  |
| Coarse-Grained Soils<br>50% retained on No.                     | reta  | Gre  | GC   | Clay                                      | ey gravels, gravel-sa<br>mixtures  | ınd-clay   |                   | 4 - 10<br>10 - 30                       |                     | Loose<br>Medium                                     |  |
| arse-Gı<br>)% retai   |   | - 10   | SW   | Wel                                       | l-graded sands and g   |            |                   | 30 - 50                                 |                     | Dense   |  |
| Coarse-Grained Soils<br>More than 50% retained on No. 200 sieve | Sands<br>more than 50% of<br>coarse fraction<br>passes No. 4 sieve      | Clean<br>Sands                                 | SP   |   | Poorly graded sands velly sands, little or r   | and        |                   | > 50                                    |                     | Very dense  |  |
| Mor   | San<br>e thai<br>arse f   | Sands<br>with<br>Fines                         | SM   | Ť   | y sands, sand-silt m   |            |                   |   |                     |   |  |
|   | mor<br>co<br>pass   | SC   | ,  | Clayey sands, sand-<br>mixtures           | clay   |            |                   |   |                     |   |  |
|   | Ø   | ML   | Inorganic silts, very fine sands,<br>rock flour, silty or clayey fine<br>sands |   |  |            | Sta               | andard Penetra                          | ation Test          |   |  |
| Fine-Grained Soils<br>50% or more passes No. 200 sieve          | Silts and Clays   | siits and Clays<br>Liquid limit<br>50% or less |  |   | Inorganic clays of low to<br>medium plasticity, gravelly clays,<br>sandy clays, silty clays, lean<br>clays |            |                   | tion<br>nce N<br>ft)                    | Consistency         | Unconfined<br>Compressive<br>Strength<br>(tons/ft²) |  |
| Fine-Grained Soils<br>nore passes No. 20                        |   |  | OL   | Orç                                       | ganic silts and organ<br>clays of low plastic  |            | <2                |   | Very Soft           | <0.25   |  |
| e pas   |   |  |  | Inc                                       | organic silts, micace  | -          | 2 - 4             | 4                                       | Soft                | 0.25050   |  |
| Fine<br>r mor   | ays<br>ays  | %09  | MH   |   | omaceous fine sands<br>elastic silts   |            | 4 - 8             |   | Medium              | 0.50 - 1.00   |  |
| 20% 0   | s and Cla   | ter than                                       | СН   | Inorg                                     | ganic clays of high p<br>fat clays   | lasticity, | 8 - 15<br>15 - 30 |   | Stiff<br>Very Stiff | 1.00 - 2.00<br>2.00 - 4.00                          |  |
|   | 50% or moi<br>Silts and Clays<br>Liquid limit<br>greater than 50%       |  | ОН   | Orga                                      | anic clays of medium plasticity  | to high    | >30               |   | Hard                | >4.00   |  |
| Н   | ighly Organic S   | oils   | PT   | Peat, mucic, and other high organic soils |  |            |                   |   |                     |   |  |
|   |   | (  | 3"   | 3/4" #4                                   |  |            | #10 #40           |   |                     | #200 U.S. Standard Sieve                            |  |
| Unif  | ied Soil  | Cobbles  |  | Gravel                                    |  |            | Sand              |   |                     | Silt or Clay  |  |
| Classification Cobbles  |   | coarse   |  | fine                                      | coars  | se         | medium            | fine                                    | Jill Of Olay        |   |  |

|                |   | ·      |           |   |             |
|----------------|---|--------|-----------|---|-------------|
| Dry            | Absence of moisture: dusty, dry to the touch  | trace  | 0 - 5 %   | С | Core Sample |
| Slightly Moist | Below optimum moisture content for compaction | few    | 5 - 10 %  | S | SPT Sample  |
| Moist          | Near optimum moisture content                 | little | 10 - 25 % | В | Bulk Sample |

 Moist
 Near optimum moisture content
 little
 10 - 25 %
 B
 Bulk Sample

 Very Moist
 Above optimum moisture content
 some
 25 - 45 %
 \_\_\_\_\_ Groundwater

 Wet
 Visible free water; below water table
 Qp Pocket Penetrometer

#### BASIC LOG FORMAT:

MOISTURE CONDITIONS

Group name, Group symbol, (grain size), color, moisture, consistency or relative density. Additional comments: odor, presence of roots, mica, gypsum, coarse grained particles, etc.

MATERIAL QUANTITY

**OTHER SYMBOLS** 

#### **EXAMPLE**

Sand (SP), fine to medium grained, brown, moist, loose, trace silt, little fine gravel, few cobbles up to 4" in size, some hair roots and rootlets.

File:Mgr: c;\SoilClassif.wpd

|                                     |          |             | s, In                   |             |                    |              |                |   | BORING LOG   |
|-------------------------------------|----------|-------------|-------------------------|-------------|--------------------|--------------|----------------|---|--|
| PRC                                 | JECT     |             | EAN BI<br>20 W. L       |             | RANCH              | 1            |                |   | W.O. 6960-A7-SC BORING B-1 SHEET 1 OF 1  |
|                                     |          |             |                         |             |                    |              |                |   | DATE EXCAVATED 7/18/19 LOGGED BY: MJS APPROX. ELEV.: 204' MSL  |
|                                     |          |             |                         |             |                    |              |                |   | SAMPLE METHOD: Truck Mounted Rig, 6-8" Auger   |
|                                     |          | Samp        | ole                     |             |                    |              |                |   |  |
| Depth (ft.)                         | Bulk     | Undisturbed | Blows/Ft.               | USCS Symbol | Dry Unit Wt. (pcf) | Moisture (%) | Saturation (%) |   | Material Description   |
| 0 <sup>-</sup> -<br>-<br>-          |          |             |                         | SM          |                    |              |                | Q | QUATERNARY ALLUVIUM:  @ 0' SILTY SAND, light olive brown, dry, loose.  |
| 5 –                                 |          |             |                         |             |                    |              |                |   | @ 4' As per 0', damp.  |
| -                                   |          |             |                         | SP          |                    |              |                |   | @ 6' SAND, slight yellowish brown, damp, loose to medium dense; fine to medium grained, scattered subangular pebbles, micaceous.   |
| 10 -                                |          |             |                         |             |                    |              |                |   | @ 10' As per 6', dark yellowish brown, moist to wet.   |
| -<br>15 <del>-</del><br>-<br>-<br>- | <b>F</b> |             |                         |             |                    |              |                |   | <ul> <li>@ 15' Groundwater encountered.</li> <li>@ 16' SAND, interbedded dark yellowish brown and dark gray brown, saturated, loose; fine to coarse grained, scattered subrounded pebbles, micaceous.</li> </ul> |
| 20                                  |          |             |                         |             |                    |              |                |   | Total Depth = 19 <sup>3</sup> / <sub>4</sub> ' Groundwater @ 15' (@16' 7/18/19) Backfilled 7/27/19   |
| 25 <del>-</del><br>-<br>-           |          |             |                         |             |                    |              |                |   |  |
| 30 -                                |          |             |                         |             |                    |              |                |   |  |
| <u> </u>                            | tond     | ard D       | notrot:                 | n Tast      |                    |              |                |   |  |
|                                     |          |             | enetration<br>I, Ring S |             |                    |              |                |   | ₹ Groundwater<br>ૄ Seepage   |
|                                     |          |             |                         |             |                    |              |                |   | GeoSoils, Inc.   |

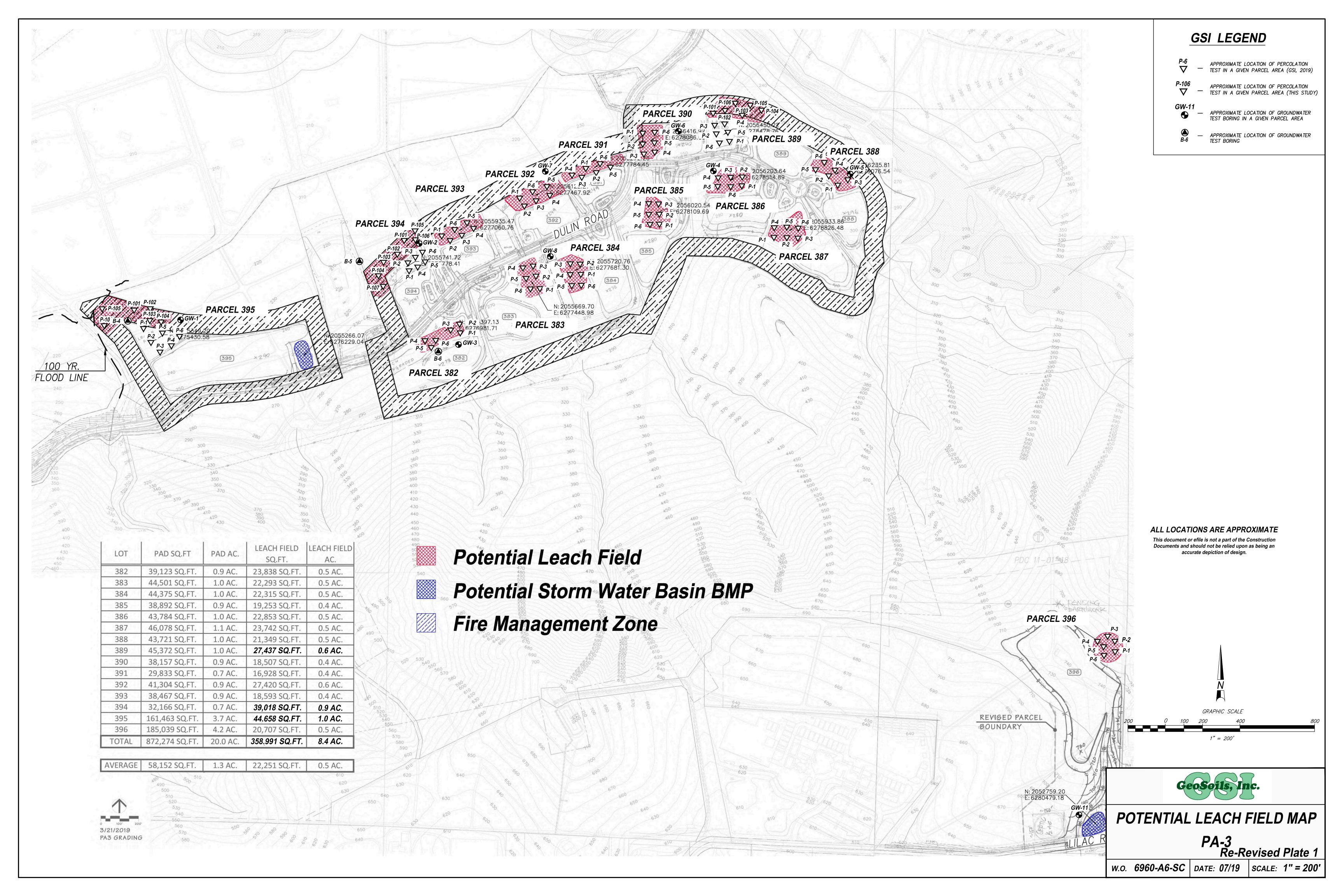
|                |          |             | s, In              |             |                    |              |                |              | BORING LOG  |                           |  |  |  |
|----------------|----------|-------------|--------------------|-------------|--------------------|--------------|----------------|--------------|---|---------------------------|--|--|--|
| PRO            | JECT     |             | EAN BI<br>20 W. Li |             | RANCH<br>ad        |              |                |              | W.O. 6960-A7-SC BORING B-2 SI   | HEET <u>1</u> OF <u>1</u> |  |  |  |
|                |          |             |                    |             |                    |              |                |              | DATE EXCAVATED 7/18/19 LOGGED BY: MJS AI  | PPROX. ELEV.: 204' MSL    |  |  |  |
|                |          |             |                    |             |                    |              |                |              | SAMPLE METHOD: Truck Mounted Rig, 6-8" Auger  |                           |  |  |  |
|                |          | Samp        | ole                |             |                    |              |                |              |   |                           |  |  |  |
| Depth (ft.)    | Bulk     | Undisturbed | Blows/Ft.          | USCS Symbol | Dry Unit Wt. (pcf) | Moisture (%) | Saturation (%) |              | Material Description  |                           |  |  |  |
| 5 —            |          |             |                    | ML          |                    |              |                |              | OLDER ALLUVIUM:  @ 0' SANDY SILT, medium brown, dry to damp, me  @ 5' As per 0', dark reddish brown.  | edium dense.              |  |  |  |
| -<br>-<br>10 — |          |             |                    | SM          |                    |              |                |              | @ 7' SILTY SAND, dark yellowish brown, slightly mescattered subangular pebbles.   | oist to moist, dense;     |  |  |  |
| 15 –           | <b>Z</b> |             |                    | SM          |                    |              |                |              | VEATHERED GRANITICS:  @ 12' SILTY SAND, light yellowish brown, slightly n dense.  @ 14' As per 12', yellowish brown, wet.  @ 14' Potential perched water encountered. | noist to moist, very      |  |  |  |
| 20             | tanda    | ard Pe      | enetratio          | on Test     |                    |              |                | <u> </u><br> | Practical Refusal @ 14½' Potential Perched Water Encountered @ 14' Backfilled 7/27/19   |                           |  |  |  |
|                |          |             | , Ring S           |             |                    |              |                |              | Ç Seepage   |                           |  |  |  |
|                |          |             |                    |             |                    |              |                |              | GeoSoils, Inc.  | A-3<br>ATE                |  |  |  |

|                      |       |                       | s, In            |             |                    |              |                |   | BORING LOG  |  |  |  |  |
|----------------------|-------|-----------------------|------------------|-------------|--------------------|--------------|----------------|---|---|--|--|--|--|
| PRC                  | JECT  |                       | EAN B<br>20 W. L |             | RANCH<br>ad        | l            |                |   | W.O. 6960-A7-SC BORING B-3 SHEET 1 OF 1   |  |  |  |  |
|                      |       |                       |                  |             |                    |              |                |   | DATE EXCAVATED 7/18/19 LOGGED BY: MJS APPROX. ELEV.: 206' MSL   |  |  |  |  |
|                      |       |                       |                  |             |                    |              |                |   | SAMPLE METHOD: Truck Mounted Rig, 6-8" Auger  |  |  |  |  |
| Depth (ft.)          | Bulk  | Sam <br>  Ondisturbed | Blows/Ft.        | USCS Symbol | Dry Unit Wt. (pcf) | Moisture (%) | Saturation (%) |   | Material Description  |  |  |  |  |
| 0 -                  |       |                       |                  | SM          |                    |              |                | 9 | COLLUVIUM: ② 0' SILTY SAND, light brown, dry, loose.  |  |  |  |  |
| -<br>-<br>5 –        |       |                       |                  | SM          |                    |              |                | ( | OLDER ALLUVIUM:  @ 2½' SILTY SAND, yellowish brown, damp, loose; sporadic granitic pebbles.   |  |  |  |  |
| 5 -<br>-<br>-        |       |                       |                  | SP          |                    |              |                |   | @ 5' SAND, dark gray brown, damp to moist, loose; fine grained.   |  |  |  |  |
| 10 <del>-</del><br>- |       |                       |                  | CL          |                    |              |                |   | @ 9' SILTY CLAY, dark gray brown, moist, soft to medium stiff.  |  |  |  |  |
| -<br>-<br>15 –       |       |                       |                  |             |                    |              |                |   | <ul> <li>@ 12½' SANDY CLAY, dark olive brown, moist to wet, stiff; granitic sand.</li> <li>@ 14' GRAVELLEY CLAY, gray brown, moist, dense/hard; subrounded</li> </ul> |  |  |  |  |
| - 15                 |       |                       |                  |             |                    |              |                |   | gravels.<br>@ 15' As per 14', dark reddish brown and dark gray brown.   |  |  |  |  |
| 20 —                 |       |                       |                  |             |                    |              |                |   | @ 17' SANDY CLAY, dark yellowish brown to olive brown, moist to wet, very stiff to hard.  |  |  |  |  |
| =                    |       |                       |                  |             |                    |              |                |   | Total Danth = 22  |  |  |  |  |
| -                    |       |                       |                  |             |                    |              |                |   | Total Depth = 22' No Groundwater Encountered  |  |  |  |  |
| 25 <del>-</del><br>- |       |                       |                  |             |                    |              |                |   | Backfilled 7/27/19  |  |  |  |  |
| 30 -                 |       |                       |                  |             |                    |              |                |   |   |  |  |  |  |
| -                    |       |                       |                  |             |                    |              |                |   |   |  |  |  |  |
|                      |       |                       | enetratio        |             |                    |              | <u> </u>       |   | ₹ Groundwater   |  |  |  |  |
| ⊥υ                   | ndist | urbea                 | l, Ring S        | Sample      |                    |              |                |   | Ç Seepage   |  |  |  |  |
|                      |       |                       |                  |             |                    |              |                |   | GeoSoils, Inc.  |  |  |  |  |

| GeoSoils, Inc.   | BORING LOG  |
|--|---|
| PROJECT: OCEAN BREEZE RANCH<br>5820 W. Lilac Road                                      | W.O. 6960-A7-SC BORING B-4 SHEET 1 OF 1   |
|  | DATE EXCAVATED 7/18/19 LOGGED BY: MJS APPROX. ELEV.: 212' MSL   |
|  | SAMPLE METHOD: Truck Mounted Rig, 6-8" Auger  |
| Sample   |   |
| Bulk Undisturbed Undisturbed Blows/Ft.  Dry Unit Wt. (pcf) Moisture (%) Saturation (%) | Material Description  |
| 0 SM SM SC/CL SC/CL 10 − CL 15 − .   | <ul> <li>OLDER ALLUVIUM: <ul> <li>© 0' SILTY SAND, light brown, dry, loose.</li> <li>© 1½' SILTY SAND, brown, damp, loose.</li> <li>© 3½' SILTY SAND, brown, moist, loose to medium dense.</li> </ul> </li> <li>© 7½' CLAYEY SAND/SANDY CLAY, olive brown, wet, medium dense to dense.</li> <li>© 12½' SANDY CLAY, olive brown, wet, medium stiff to stiff.</li> <li>© 12½' Groundwater encountered.</li> <li>© 16½' SANDY CLAY, yellowish brown, saturated, stiff traces of granules.</li> </ul>   |
| 20 -   | Total Depth = $19\frac{3}{4}$ '   |
| 25 – 30 – Standard Penetration Test  | Groundwater Encountered @ 12½' Backfilled 7-27-2019  Figure 3. Figure 1. Section 1. Sec |
| ☐ Undisturbed, Ring Sample   | ⊊ Groundwater   |
|  | GeoSoils, Inc.  |

|                      |      |             | s, In                   |                   |                    |              |                |          | BORING LOG   |  |  |  |  |  |
|----------------------|------|-------------|-------------------------|-------------------|--------------------|--------------|----------------|----------|--|--|--|--|--|--|
| PRO                  | JEC1 |             |                         | REEZE<br>ilac Roa | RANCH<br>ad        | I            |                |          | W.O. 6960-A7-SC BORING B-5 SHEET 1 OF 1                            |  |  |  |  |  |
|                      |      |             |                         |                   |                    |              |                |          | DATE EXCAVATED   |  |  |  |  |  |
|                      |      |             |                         |                   |                    |              |                |          | SAMPLE METHOD: Truck Mounted Rig, 6-8" Auger                       |  |  |  |  |  |
|                      |      | Samp        | ole                     |                   |                    |              |                |          |  |  |  |  |  |  |
| Depth (ft.)          | Bulk | Undisturbed | Blows/Ft.               | USCS Symbol       | Dry Unit Wt. (pcf) | Moisture (%) | Saturation (%) |          | Material Description   |  |  |  |  |  |
| 0 -                  |      |             |                         | SC                |                    |              |                | <u> </u> | DLDER ALLUVIUM: ② 0' CLAYEY SAND, reddish brown, dry, loose.       |  |  |  |  |  |
| -<br>-<br>5 —        |      |             |                         | SC/<br>SM         |                    |              |                |          | @ 2½' CLAYEY SAND/SILTY SAND, brown, moist, loose to medium dense. |  |  |  |  |  |
| -                    |      |             |                         | SC                |                    |              |                |          | @ 6½' CLAYEY SAND, brown, moist, medium dense to dense.            |  |  |  |  |  |
| 10 -                 |      |             |                         |                   |                    |              |                |          | @ 12' CLAYEY SAND, brown, moist, dense.                            |  |  |  |  |  |
| 20 —                 |      |             |                         | SC/CL             |                    |              |                |          | @ 18' CLAYEY SAND/SANDY CLAY, olive brown, moist, dense/stiff.     |  |  |  |  |  |
| -                    |      |             | _                       |                   |                    |              |                |          | Total Depth = 20' No Groundwater Encountered Backfilled 7-20-2019  |  |  |  |  |  |
| 25 <del>-</del><br>- |      |             |                         |                   |                    |              |                |          |  |  |  |  |  |  |
| 30 -                 |      |             |                         |                   |                    |              |                |          |  |  |  |  |  |  |
| -                    |      |             |                         |                   |                    |              |                |          |  |  |  |  |  |  |
|                      |      |             | enetration<br>I, Ring S |                   |                    |              |                |          | <ul><li>Groundwater</li><li>Seepage</li></ul>                      |  |  |  |  |  |
|                      |      |             |                         |                   |                    |              |                |          | GeoSoils, Inc.   |  |  |  |  |  |

|                           |      |             | s, In                   |             |                    |              |                |          | BORING LOG  |                         |
|---------------------------|------|-------------|-------------------------|-------------|--------------------|--------------|----------------|----------|---|-------------------------|
| PRC                       | JEC1 |             | EAN BI<br>20 W. L       |             | RANCH<br>ad        | I            |                |          | W.O. 6960-A7-SC BORING B-6  | SHEET1 OF1              |
|                           |      |             |                         |             |                    |              |                |          | DATE EXCAVATED 7/18/19 LOGGED BY: MJS   | APPROX. ELEV.: 266' MSL |
|                           |      |             |                         |             |                    |              |                |          | SAMPLE METHOD: Truck Mounted Rig, 6-8" Auger  |                         |
|                           |      | Samı        | ole                     |             | (                  |              |                |          |   |                         |
| Depth (ft.)               | Bulk | Undisturbed | Blows/Ft.               | USCS Symbol | Dry Unit Wt. (pcf) | Moisture (%) | Saturation (%) |          | Material Description  |                         |
| 0 -                       |      |             |                         | SM          |                    |              |                | <u>\</u> | WEATHERED GRANITICS:  @ 0' SILTY SAND, light brown, dry, loose.   |                         |
| 5 <del>-</del>            |      |             |                         | CL          |                    |              |                |          | <ul><li>@ 4' SILTY SAND, dark brown, moist, loose.</li><li>@ 7' SANDY CLAY, dark brown, moist, medium</li></ul> | ı stiff.                |
| 10 -                      |      |             |                         |             |                    |              |                |          |   |                         |
| -<br>-<br>15 –            |      |             |                         | SC          |                    |              |                |          | @ 12' CLAYEY SAND, grayish brown, damp, do  | ense.                   |
| 20 -                      |      |             |                         | SM          |                    |              |                |          | @ 15' SILTY SAND, gray, damp, dense.  |                         |
| -                         |      |             |                         |             |                    |              |                |          | Total Depth = 20' No Groundwater Encountered Backfilled 7-27-2019   |                         |
| 25 <del>-</del><br>-<br>- |      |             |                         |             |                    |              |                |          |   |                         |
| 30 -                      |      |             |                         |             |                    |              |                |          |   |                         |
|                           |      |             | enetration<br>I, Ring S |             |                    |              | •              | •        | ₹ Groundwater   |                         |
|                           |      |             |                         | -           |                    |              |                |          | GeoSoils, Inc.  | A-7<br>PLATE            |





# GSI LEGEND

 $\nabla$ - APPROXIMATE LOCATION OF PERCOLATION TEST IN A GIVEN

APPROXIMATE LOCATION OF PERCOLATION TEST IN A GIVEN PARCEL AREA (THIS STUDY)

APPROXIMATE LOCATION OF GROUNDWATER TEST BORING IN A GIVEN PARCEL AREA

APPROXIMATE LOCATION OF GROUNDWATER TEST BORING

APPROXIMATE LOCATION OF MOBILE HOME RESIDENTIAL, POTENTIAL LEACH FIELD AREA APPROXIMATE LOCATION OF MOBILE HOME RESIDENTIAL, POTENTIAL LEACH FIELD AREA

B9 - APPROXIMATE LOCATION OF BARN/ SHOP LEACH FIELD

A ARENA OR EXERCISER B1 SHOP/ EQUIPMENT STORAGE **LF** LEACH FIELD **B2** MARE BARN **M** MOBILE HOME

**B7** FOALING BARN

**B8** BREEDING BARN **B9** SHOP **EH** RELOCATED EMPLOYEE HOUSE

### **BUILDING STATUS LEGEND:**

(AB) AS-BUILT RECENTLY BUILT WITHOUT PRIOR PERMIT

### (E) EXISTING EXISTING BUILDINGS/STRUCTURES WITH PERMIT (P) PROPOSED PROPOSED NEW BUILDINGS/STRUCTURES REQUIRE BUILDING PERMIT

### LEGEND:

1 POWER POLE (EXIST.) 2 DIRT ROAD (EXIST.)

3 ASPHALT ROAD (EXIST.) 4 LIGHT (EXIST.)

6 WOOD FENCE (PROPOSED)

5 WOOD FENCE (EXIST.)

10 TANK (EXIST.) 11 WATER LINE (EXIST.)

7 ELECTRIC TRANSFORMER (EXIST.) 8 DIRT ROAD (PROPOSED) 9 ASPHALT ROAD (PROPOSED)

OCEAN BREEZE RANCH

MAJOR USE PERMIT <u>5615</u> EQUESTRIAN CENTER



BASE MAP FROM:

This document or efile is not a part of the Construction Documents and should not be relied upon as being an accurate depiction of design.



POTENTIAL LEACH FIELD MAP BUILDING SITES R7, R8, B9

Re-Revised Plate 2

W.O. 6960-A6-SC | DATE: 07/19 | SCALE: 1" = 200"

### **BUILDING LEGEND:**

**FWR** FOWLING PENS WITH ROOF

B3 LAY UP BARN REHAB

P THERAPY POOL **PS** PASTURE SHED

**ST** SEPTIC TANK

PWR PENS WITH ROOF **Q** QUARANTINE PEN **R** RESIDENCE BUILDING

PROJECT DESIGN CONSULTANTS

Planning | Landscape Architecture | Engineering | Survey

701 B Street, Suite 800
San Diego, CA 92101
619.235.6471 Tel
619.234.0349 Fax

SHEET 2 OF 8

ADDENDUM TO THE PERCOLATION FEASIBILITY STUDY
PLANNING AREA 3 OF OCEAN BREEZE RANCH
INCLUDING RESIDENCES R7 AND R8, AND BARN B9
COMMUNITY OF BONSALL
SAN DIEGO COUNTY, CALIFORNIA

FOR

OCEAN BREEZE RANCH 5820 WEST LILAC ROAD BONSALL, CALIFORNIA 92003

W.O. 6960-A6-SC MAY 17, 2019





Geotechnical • Geologic • Coastal • Environmenta

5741 Palmer Way • Carlsbad, California 92010 • (760) 438-3155 • FAX (760) 931-0915 • www.geosoilsinc.com

May 17, 2019

W.O. 6960-A6-SC

### **Ocean Breeze Ranch**

5820 West Lilac Road Bonsall, California 92003

Attention: Mr. Jim Conrad

Subject: Addendum to the Percolation Feasibility Study, Planning Area 3 of Ocean

Breeze Ranch, Including Residences R7and R8, and Barn B9, Community

of Bonsall, San Diego County, California

Reference: "Percolation Feasibility Study, Planning Area 3 of Ocean Breeze Ranch,

Including Residences R7and R8, and Barn B9, Community of Bonsall, San Diego County, California," W.O. 6960-A6-SC, dated May 6, 2019, by

Geosoils, Inc.

### Dear Mr. Conrad:

In accordance with your request and authorization, GeoSoils, Inc. (GSI) has prepared the following addendum to the referenced percolation feasibility study, with respect to onsite wastewater treatment within certain sites in Planning Area PA-3, and select sites within the existing equestrian center property, at Ocean Breeze Ranch, in the community of Bonsall, San Diego County, California. The purpose of this addendum was to perform additional percolation testing with respect to a re-evaluation of potential leach fields within Parcels 389, 394, 395, and residential site R8, where previous testing evaluated percolation rates that exceeded a minimum rate threshold of 120 minutes/inch (see Reference). Unless specifically superceded herein, the conclusions and recommendations presented in the referenced report remain valid and applicable. This addendum presents the findings of our additional testing, and related parcel specific design for the affected parcels/sites only. Please refer to the referenced report for a discussion of site conditions, regional groundwater conditions, means and methods, other references, etc.

### **SCOPE OF SERVICES**

The scope of our services has included the following:

1. A review of referenced report.

- 2. A review of the "potential leach field and storm water basin BMP" exhibit, for building Parcel Nos. 382 through 396 (see revised Plate 1).
- 3. Review of the "potential leach field sites in the vicinity of residential units (trailers) (R7 and R8), and barn/shop structure (B9), located within the equestrian center complex (see revised Plate 2).
- 4. Excavation of four (4) to six (6) percolation test borings for each potential leach field within Parcels 389, 394, and 395, and two potential leach fields (R8b and R8c) for Residential Site R8 (see revised Plates 1 and 2).
- 5. Evaluation of percolation rates (see Percolation Test Reports in the Appendix), based on current onsite testing, as it relates to the currently proposed construction.
- 6. Technical illustration of the locations of field percolation testing and proposed location of other proposed/existing improvements (see revised Plates 1 and 2).

### Onsite Wastewater Treatment (Leach Field) System Design

As per the requirements of the controlling authorities, all onsite wastewater disposal systems should be located within native onsite soil materials.

Final approval of the OWTS design provided herein will be based on review by the SDCDEH. The following table, and "percolation test reports" (see the Appendix) present the percolation rates obtained during our investigation, and general design criteria.

| PARCEL/BUILDING<br>NUMBER | PERCOLATION<br>RATE (t) IN<br>MINUTES/INCH | NUMBER OF<br>BEDROOMS | SEPTIC TANK<br>SIZE (Gal.) | TOTAL LENGTH<br>OF LEACH LINE<br>(FT.) |
|---------------------------|--|-----------------------|----------------------------|--|
| 389                       | 51   | 5-6                   | 1,500                      | 675                                    |
| 394                       | 51   | 5-6                   | 1,500                      | 675                                    |
| 395                       | 103  | 5-6                   | 1,500                      | 1200                                   |
| R8b                       | 95   | 2-3                   | 1,000                      | 920                                    |
| R8c                       | 29   | 2-3                   | 1,000                      | 420                                    |

In addition to the above area, a 100 to 200 percent expansion area in case of primary system failure, will need to be included in design considerations. Any changes to the location of the proposed OWTS, the estimated size of the septic tank, or building use, should be reviewed by this office. Depending upon the nature of any changes, and the requirements of the reviewing entity, additional percolation testing may be warranted.

### **PLAN REVIEW**

Once site development plans are available, these plans should be provided to this office for review and comment from an OWTS standpoint. Any proposed changes/additions to the bathroom configurations and/or locations should be made so that the proposed OWTS area is in accordance with this report. In addition, based on changes to the plans, if proposed, and/or final review by the County, additional percolation studies and/or field exploration may be necessary.

### **INVESTIGATION LIMITATIONS**

The materials encountered on the project site and utilized for our analysis are believed representative of the area; however, soil and bedrock materials vary in character between excavations and natural outcrops or conditions exposed during field testing and/or mass grading. Site conditions may vary due to seasonal changes or other factors.

Inasmuch as our study is based upon our review and engineering analyses and laboratory data, the conclusions and recommendations are professional opinions. These opinions have been derived in accordance with current standards of practice, and no warranty is express or implied. Standards of practice are subject to change with time. GSI assumes no responsibility or liability for work or testing performed by others, or their inaction; or work performed when GSI is not requested to be onsite, to evaluate if our recommendations have been properly implemented. Use of this report constitutes an agreement and consent by the user to all the limitations outlined above, notwithstanding any other agreements that may be in place. In addition, this report may be subject to review by the controlling authorities.

The opportunity to be of service is sincerely appreciated. If you should have any questions, please do not hesitate to contact our office.

ALESIONAL GE Respectfully submitted,

GeoSoils, Inc.

Robert G. Crisman

Engineering Geologist, CEG 1934

Certified Engineering Geologist

Engineering Geologist, CEG 1340

Certified Engineering Geologist

MJS/RGC/JPF/jh

Attachments: Appendix - Percolation Test Reports, Parcel 389, 393, 394, and R8

Revised Plate 1 - Potential Leach Field Map PA-3

Revised Plate 2 - Potential Leach Field Map Building Sites R7, R8, B9

Distribution: (4) Addressee

# APPENDIX A PERCOLATION TEST REPORTS



| DEH Control #: |  |
|----------------|--|
| Date:          |  |
| Activity Code: |  |

| OF ENVIRONME   |   |                                     |                                   |  | 101                  |
|--|---|-------------------------------------|-----------------------------------|--|----------------------|
| Assessor's Parcel Number: _/   | 1241503                                       | 500                                 | Map #                             | Lot #  | 18 b                 |
| Site Address 5820 W  | . Lilac Ro                                    | DAD                                 | Town:                             | 7750// Zip C   | ode: 92003           |
| Owner: Ocean BREE  | EZE FARMS                                     | s, LL (                             | Phone:                            |  |                      |
| Mailing Address: 5820  | W. Lilac                                      | ROAD                                | , Bonsall,                        | Ca.  |                      |
| Test Test Depth  | Stabilized<br>Rate                            | Test<br>Hole #                      | Test Depth                        | Stabilized<br>Rate                                     | Average<br>Perc Rate |
| P101 55-67"<br>P102 48-60"<br>P103 417-59"   | 97<br>88<br>102                               | P105<br>P106                        | 46-58"<br>58-60                   | 58   | 95                   |
| P104 46-58"  | 203   |                                     |                                   |  |                      |
| Surface: SILTY  2-5 ft. below surface: Depth to Refusal: NON  RECOMMENDATIONS: Septic Tank: /000  Leach Line Length: 120  Trench Depth: 4  Rock below Pipe: /2"  Other: Proposed Structure: 2 | gal Pump C  ft Seepage ft Length: in Total De | Depth to hamber: _ e Pit Type epth: | Groundwater:<br>gal<br>e:ft<br>ft | > /s-/ Surge Tank: Number of Pits: _ Width: Cap Depth: | ft                   |
| WATER SUPPLY: Source of Potable Water:   |   |                                     |                                   |  |                      |
| Registered CE, PE Geologist, RE  GeoSol S The  Address:  | EHS: P  | e with state                        | and local regulation              |  | eering practice.     |
| ,  | FOR   | DEPARTM                             | ENT USE ONLY                      |  |                      |
| Approved: Yes No<br>Specialist:  |   |                                     |                                   | ap Required: Yes                                       | No                   |
| Building Plan Review:  |   |                                     | Date:                             |  |                      |
| Grading Inspection:  |   |                                     | Date:                             |  |                      |
| Vater Sample Analysis Results:   |   |                                     | Date:                             |  |                      |



| DEH Control #  | *<br>* |
|----------------|--------|
| Date:          |        |
| Activity Code: |        |

| 23441404   |   |  |  |  |   |
|--|---|--|--|--|---|
| Assessor's Parcel Number:  | 124/5035  | 00   | Map #  | Lot #  | RBC                                       |
| Site Address 5820 W  | . Lilac ROAL                                    |  | Town: Bon  | 754// Zip C  | ode: <u>92003</u>                         |
| Owner: Ocean Brea  | ere Farms                                       | LLC  | Phone:   |  |   |
| Mailing Address: 5820  | •   |  | The state of the s |  |   |
| Test Test Depth Hole #   | Stabilized<br>Rate                              | Test<br>Hole #   | Test Depth   | Stabilized<br>Rate                                       | Average<br>Perc Rate                      |
| P101 36-48"<br>P102 36-48"<br>P103 36-48"<br>P104 36-48"   | 26<br>16<br>33<br>39                            |  |  |  | 29  |
| Vertical seepage pits: Provide soils   |   |  |  |  |   |
| ft. below surface:ft. below surface: | gal Pump C _ft Seepage _ft Length: _in Total De | Depth to hamber: _e Pit Typeepth:e   | Groundwater:<br>gal<br>:ft   | Surge Tank:<br>Number of Pits: _<br>Width:<br>Cap Depth: | gal<br>ft<br>ft                           |
| WATER SUPPLY: Source of Potable Water:   |   |  |  |  |   |
| I have reviewed this percolation data and design to be accurate Registered CE, PE, Geologist, RE Address: GeoSolis Inc. S  | data and design<br>and in complianc             | of the subsection of the subse | and local regulation   | osal system for this<br>ns, and good engin               | s parcel and find the<br>eering practice. |
|  |   |  |  | D  | N.I.                                      |
| Approved: Yes No<br>Specialist:  |   |  |  | p Required: Yes  | No  |
| Building Plan Review:  |   |  | Date:  |  | 2   |
| Grading Inspection:<br>Water Sample Analysis Res   | - N   |  | Date:  |  |   |
| ater Sample Analysis Results:  |   |  | Date:  |  |   |



| DEH Control #:   | - |
|------------------|---|
| Date:            |   |
| Activity Code: _ |   |

| CAVIRON   |                                |                |  |  |                       |  |
|---|--------------------------------|----------------|--|--|-----------------------|--|
| Assessor's Parcel Number:/  | 241503                         | 500            | Map #  | Lot                                      | #389                  |  |
| Site Address 5820 W.  | LILAC R                        | CIAOL          | Town: <u>  </u>   <u>                               </u> | onsallZip                                | Code: 92003           |  |
| Owner: Octan Bree   | 2c Farm                        | s, LL          | Phone:   |  |                       |  |
| Mailing Address: <u>5820</u>  |                                |                |  |  |                       |  |
| Test Test Depth<br>Hole#  | Stabilized<br>Rate             | Test<br>Hole # | Test Depth   | Stabilized<br>Rate                       | Average<br>Perc Rate  |  |
| P101 46-58"   | 57                             | P105           | 47-59"   | 78                                       |                       |  |
| PIOZ 48-60"   | 18                             | P106           | 50-64"   | 80                                       | 51                    |  |
| P103 50-62"   | 24                             |                |  |  |                       |  |
| P104 50-62"   | 48                             |                |  |  |                       |  |
|   |                                |                | J  |  |                       |  |
| Vertical seepage pits: Provide soils  | log, uniformity/capa           | acity test res | ults, and calculatio                                     | ns on separate 8-1/2"                    | x 11" sheets of paper |  |
| TYPE OF SOIL: (clay, silt, s  | and decompos                   | sed aranita    | a etc)   |  |                       |  |
| Surface: SILty SA   |                                |                | J, 610. <i>j</i>   |  |                       |  |
| ft. below surface:  | Clayeu SI                      | 1012 ( <       |  | 4-11-1-11-11-11-11-11-11-11-11-11-11-11- |                       |  |
| ft. below surface:  | CINICH DA                      | IND CO         | -)   |  |                       |  |
| ft. below surface:  |                                |                |  |  |                       |  |
| ft below surface:   |                                |                |  |  |                       |  |
| ft. below surface:<br>Depth to Refusal:   | E                              | Donth to       | Groundwater:   | 31-1                                     |                       |  |
| Deptil to Nelasai.  |                                | Deptirio       | Oroanawater.   |  |                       |  |
| RECOMMENDATIONS:  |                                |                |  |  |                       |  |
| Septic Tank: _/500  | gal Pump C                     | hamher         | lsn  | Surge Tank                               | nal                   |  |
|   |                                |                |  |  |                       |  |
| Leach Line Length: <u>675</u>   |                                |                |  |  |                       |  |
| Trench Depth:5  |                                |                |  |  |                       |  |
| Rock below Pipe: 12   | _ in Total De                  | epth:          | ft   | Cap Depth:                               | ft                    |  |
| Other:  |                                |                |  |  |                       |  |
| Proposed Structure: 5   | -6 BEDRO                       | om Re          | SIDENTIAL  | ,  |                       |  |
| v | 11                             |                |  |  |                       |  |
| WATER SUPPLY:   |                                |                |  |  |                       |  |
| Source of Potable Water:  |                                |                | Well   | Permit Number:                           |                       |  |
| _   |                                |                |  |  |                       |  |
| I have reviewed this percolation  |                                |                |  |  |                       |  |
| data and design to be accurate a  | and in compliance              | e with state   |  |  | gineering practice.   |  |
| Registered CE, PE Geologist, RE   | HS: John T.                    | marke          | CE   | 6 1340                                   |                       |  |
|   |                                | 1              |  |  | - 1 .0                |  |
| GeoSoils, Inc.<br>Address: 5741 PALMEN  | Wag                            | Phone:         | 760-438-   | 3155 Date                                | = 5-16-19             |  |
| CAPISBAD, CA  |                                |                |  |  |                       |  |
| -   | FOR                            | DEPARTM        | ENT USE ONLY   |  |                       |  |
| Annayadı Vac Na   | Doto                           |                | Final N  | Ion Dogwinski Va                         | na Na                 |  |
| Approved: Yes No  |                                |                |  | lap Required: Ye                         | :5 INU                |  |
|   |                                |                |  |  |                       |  |
| Building Plan Review:   |                                |                |  |  | ·                     |  |
| Grading Inspection:   |                                |                |  |  |                       |  |
| Water Sample Analysis Res   | Nater Sample Analysis Results: |                |  | Date:                                    |                       |  |



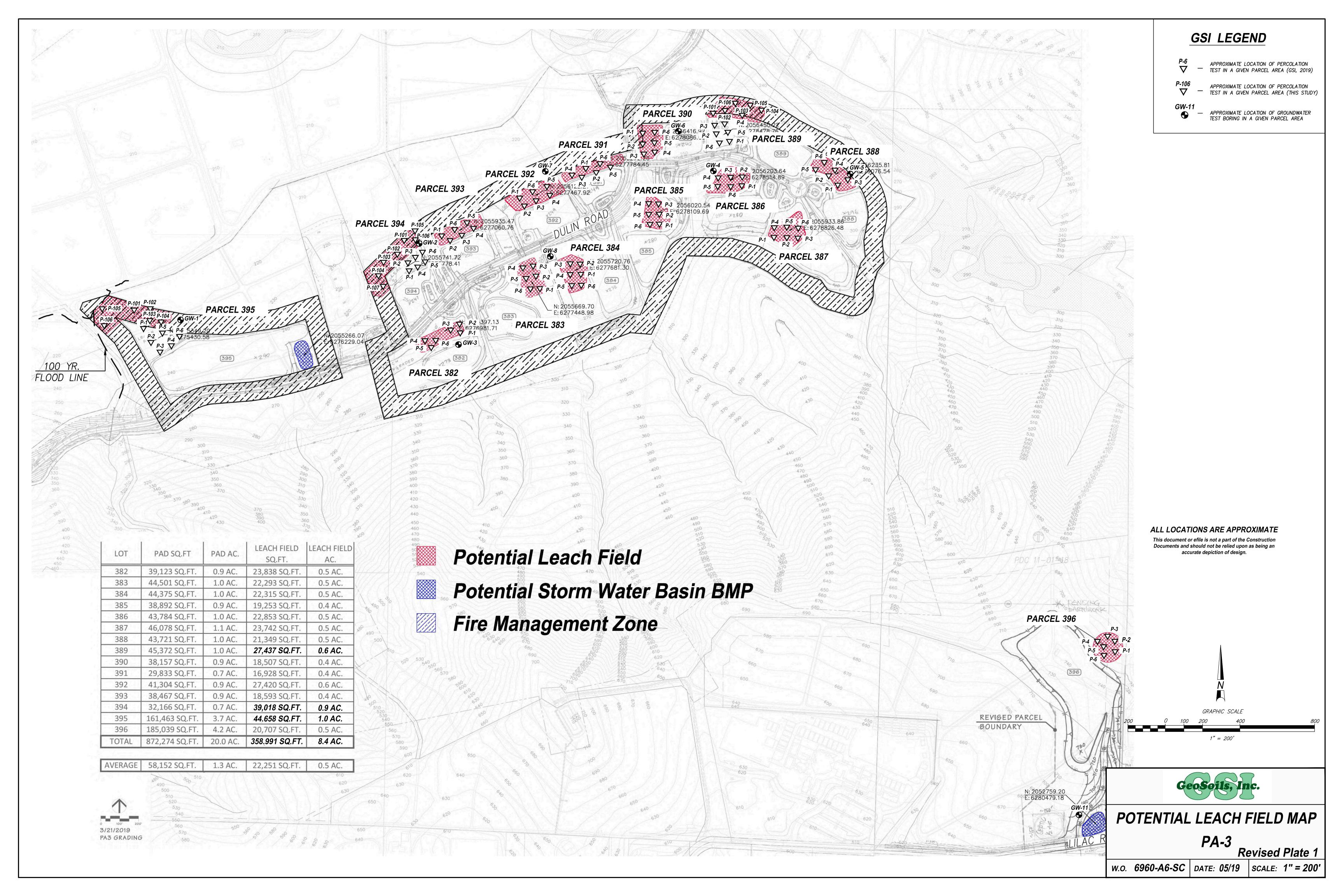
| DEH Control #: _ |  |
|------------------|--|
| Date:            |  |
| Activity Code:   |  |

| CANIRONNE TO  |                      |                 |                        |                          |  |  |
|---|----------------------|-----------------|------------------------|--------------------------|--|--|
| Assessor's Parcel Number:   | 124 150 3            | 500             | Map #                  | Lot #                    | 394  |  |
| Site Address 5820 W   | . Lilac 1            | ZOAU            | Town:                  | Zip C                    | ode: <u>92003</u>                          |  |
| Owner: Octan Bree   |                      |                 |                        |                          |  |  |
| Mailing Address:  |                      |                 |                        |                          |  |  |
| Test Depth Hole #   | Stabilized<br>Rate   | Test<br>Hole #  | Test Depth             | Stabilized<br>Rate       | Average<br>Perc Rate                       |  |
| P101 49-61"<br>P102 43-55"<br>P103 50-62"<br>P104 49-61"  | 35<br>31<br>42<br>58 | P105<br>P106    | 39-51<br>51-63         | 13                       | 51   |  |
| Vertical seepage pits: Provide soils  |                      | pacity test res | ults, and calculations | s on separate 8-1/2" x 1 | 11" sheets of paper                        |  |
| TYPE OF SOIL: (clay, silt, s Surface: SILT, Sont 25 ft. below surface: ft. below surface: ft. below surface: ft. below surface: Depth to Refusal: NON | clayer so            | nu (SC          |                        |                          |  |  |
| RECOMMENDATIONS: Septic Tank:/500 Leach Line Length: _675   | gal Pump (           | Chamber: _      | gal                    | Surge Tank:              |  |  |
| Trench Depth: 5  Rock below Pipe: /2"   | ft Length:           |                 | ft                     | Width:                   | ft   |  |
| Other: <i>5</i>   |                      |                 |                        |                          |  |  |
| WATER SUPPLY: Source of Potable Water:  |                      |                 |                        | Permit Number:           |  |  |
| I have reviewed this percolation data and design to be accurate a   | and in complian      | ce with state   | and local regulati     | ons, and good engin      | s parcel and find the<br>neering practice. |  |
| Registered CE, PE, Geologist RE GEOSOILS, Inc. Address: 5741 PALMEN   |                      | Phone:          | 760-438-               | 3/55 Date: _             | 5-16-19                                    |  |
| CA7:20A2, CA3   | FOI                  | R DEPARTM       | ENT USE ONLY           |                          |  |  |
| Approved: Yes No<br>Specialist:   |                      |                 |                        | ap Required: Yes         | No   |  |
| Building Plan Review:<br>Grading Inspection:  |                      |                 | Date: _                |                          |  |  |
| Water Sample Analysis Res   | ulte.                |                 | Date: _                | Date:                    |  |  |



| DEH Control #  | : |
|----------------|---|
| Date:          |   |
| Activity Code: |   |

| ENVIRON   |                          |                |   |                          | -0                                     |
|---|--------------------------|----------------|---|--------------------------|--|
| Assessor's Parcel Number: _                                     |                          |                |   |                          |  |
| Site Address <u>5820</u> W                                      | 1. LILAC RON             |                | Town: <u>/3</u>   | zip C                    | ode: <u>92003</u>                      |
| Owner: Ocean Brieez   | & Farms, L               | 1C             | Phone:  |                          |  |
| Mailing Address:  | ,                        | 13             | How words to provide the control of | · .                      |  |
| Took Doubh  | Ctabilized               | Tast           | Toot Donth  | Ctobilized               | Averege                                |
| Test Depth Hole #   | 1                        | Test<br>Hole # | Test Depth  | Stabilized<br>Rate       | Average<br>Perc Rate                   |
|   |                          | _              | (0.72.11  |                          | reicitate                              |
| P101 51-63  |                          |                | 60-72"  |                          | -                                      |
| P102 48-60  | 139                      | P106           | 48-60"  | 110                      | 103                                    |
| P103 48-60  |                          |                |   |                          |  |
| P104 46-58  | 138                      |                |   |                          |  |
| Vertical seepage pits: Provide soil                             | le log uniformitulesses  | ity tost rose  | ulte and calculations   | on senarate 8-1/2" v 1   | 1" sheets of nanor                     |
| vertical scepage pits. Floride Soll                             | s rou, uninormity/capaci | iy 10311031    | no, and calculations  | . C., Separate 0-1/L A I | . Silecto of puper                     |
| TYPE OF SOIL: (clay, silt,                                      | sand, decompose          | d granite      | , etc.)   |                          |  |
| Surface: <1/th>   | bD (5M)                  |                | **  | s                        |  |
| ft. below surface: _  | Clayer SAN               | 11) (5         | (C)   |                          |  |
| ft. below surface:  |                          |                |   |                          |  |
| ft bolow ourfood:   |                          |                |   |                          |  |
| 4-5 ft. below surface: _<br>Depth to Refusal:                   | SAND W/Grave             | 1 600          | ally other  | WISE Clasey              | SAND                                   |
| Depth to Refusal: NON   | $\epsilon$               | epth to        | Groundwater:  | >151                     |  |
|   |                          |                |   |                          |  |
| RECOMMENDATIONS:  |                          |                |   |                          |  |
| Septic Tank: /500   | gal Pump Cha             | amber:         | gal   | Surge Tank:              | gal                                    |
| Leach Line Length: /20  |                          |                |   |                          |  |
|   |                          |                |   |                          |  |
| Trench Depth: 5   |                          |                |   |                          |  |
| Rock below Pipe:  | in Total Dep             | th:            | ft  | Cap Depth:               | ft                                     |
| Other:  |                          | 3.             |   |                          |  |
| Proposed Structure:   | 6 BENROOM                | RESI           | WENTAL  |                          |  |
|   |                          |                |   |                          |  |
| WATER SUPPLY:   |                          |                |   |                          |  |
| Source of Potable Water: _                                      |                          |                | Well F  | ermit Number:            | ************************************** |
|   |                          |                |   |                          |  |
| I have reviewed this percolation data and design to be accurate |                          |                |   |                          |  |
| uata anu uesiyn to be accurati                                  | e and in compliance      | with state     |   |                          | cerning practice.                      |
| Registered CE, PE, Geologist, R                                 |                          | and            | - CEG   | 1340                     |  |
| GEOSOILS, In  |                          |                |   |                          | ~11.0                                  |
| Address: 574   Pacme  | n over                   | _ Phone: _     | 160-438-  | 3/55 Date: _             | 5-16-17                                |
| Carlabau, Co  | . 92010                  |                |   |                          |  |
| •   | FOR D                    | EPARTME        | ENT USE ONLY  |                          |  |
| Approved: Ves Ne  | Data                     |                | Cincl Ma  | an Doguirod: Voc         | No                                     |
| Approved: Yes No  |                          |                | = 1   | ap Required: Yes         | 110                                    |
| Specialist:   |                          |                | D-4   |                          |  |
| Building Plan Review:   |                          |                | Date:   |                          |  |
| Grading Inspection:   |                          |                | Date:   |                          |  |
| Water Sample Analysis Results:                                  |                          |                | Date:   |                          |  |





# GSI LEGEND

APPROXIMATE LOCATION OF PERCOLATION TEST IN A GIVEN PARCEL AREA (GSI, 2019)

- APPROXIMATE LOCATION OF PERCOLATION TEST IN A GIVEN PARCEL AREA (THIS STUDY)

APPROXIMATE LOCATION OF GROUNDWATER TEST BORING IN A GIVEN PARCEL AREA

APPROXIMATE LOCATION OF MOBILE HOME RESIDENTIAL, POTENTIAL LEACH FIELD AREA

R8 — APPROXIMATE LOCATION OF MOBILE HOME RESIDENTIAL, POTENTIAL LEACH FIELD AREA

B9 - APPROXIMATE LOCATION OF BARN/ SHOP LEACH FIELD

### **BUILDING LEGEND:**

**FWR** FOWLING PENS WITH ROOF A ARENA OR EXERCISER B1 SHOP/ EQUIPMENT STORAGE **LF** LEACH FIELD **B2** MARE BARN **M** MOBILE HOME B3 LAY UP BARN REHAB

**B7** FOALING BARN **B8** BREEDING BARN **B9** SHOP

**EH** RELOCATED EMPLOYEE HOUSE

P THERAPY POOL

**PS** PASTURE SHED PWR PENS WITH ROOF **Q** QUARANTINE PEN **R** RESIDENCE BUILDING **ST** SEPTIC TANK

### **BUILDING STATUS LEGEND:**

(AB) AS-BUILT RECENTLY BUILT WITHOUT PRIOR PERMIT (E) EXISTING EXISTING BUILDINGS/STRUCTURES WITH PERMIT (P) PROPOSED PROPOSED NEW BUILDINGS/STRUCTURES REQUIRE BUILDING PERMIT

### LEGEND:

1 POWER POLE (EXIST.) 7 ELECTRIC TRANSFORMER (EXIST.) 8 DIRT ROAD (PROPOSED) 2 DIRT ROAD (EXIST.)

3 ASPHALT ROAD (EXIST.) 4 LIGHT (EXIST.)

5 WOOD FENCE (EXIST.) 6 WOOD FENCE (PROPOSED)

10 TANK (EXIST.) 11 WATER LINE (EXIST.)

9 ASPHALT ROAD (PROPOSED)

### BASE MAP FROM:

# MAJOR USE PERMIT <u>5615</u> EQUESTRIAN CENTER OCEAN BREEZE RANCH



SHEET 2 OF 8



POTENTIAL LEACH FIELD MAP BUILDING SITES R7, R8, B9

Revised Plate 2

W.O. 6960-A6-SC | DATE: 05/19 | SCALE: 1" = 200"

# PERCOLATION FEASIBILITY STUDY PLANNING AREA 3 OF OCEAN BREEZE RANCH INCLUDING RESIDENCES R7 AND R8, AND BARN B9 COMMUNITY OF BONSALL SAN DIEGO COUNTY, CALIFORNIA

FOR

OCEAN BREEZE RANCH 5820 WEST LILAC ROAD BONSALL, CALIFORNIA 92003

W.O. 6960-A6-SC MAY 6, 2019





Geotechnical • Geologic • Coastal • Environmental

5741 Palmer Way • Carlsbad, California 92010 • (760) 438-3155 • FAX (760) 931-0915 • www.geosoilsinc.com

May 6, 2019

W.O. 6960-A6-SC

### **Ocean Breeze Ranch**

5820 West Lilac Road Bonsall, California 92003

Attention: Mr. Jim Conrad

Subject: Percolation Feasibility Study, Planning Area 3 of Ocean Breeze Ranch,

Including Residences R7and R8, and Barn B9, Community of Bonsall,

San Diego County, California

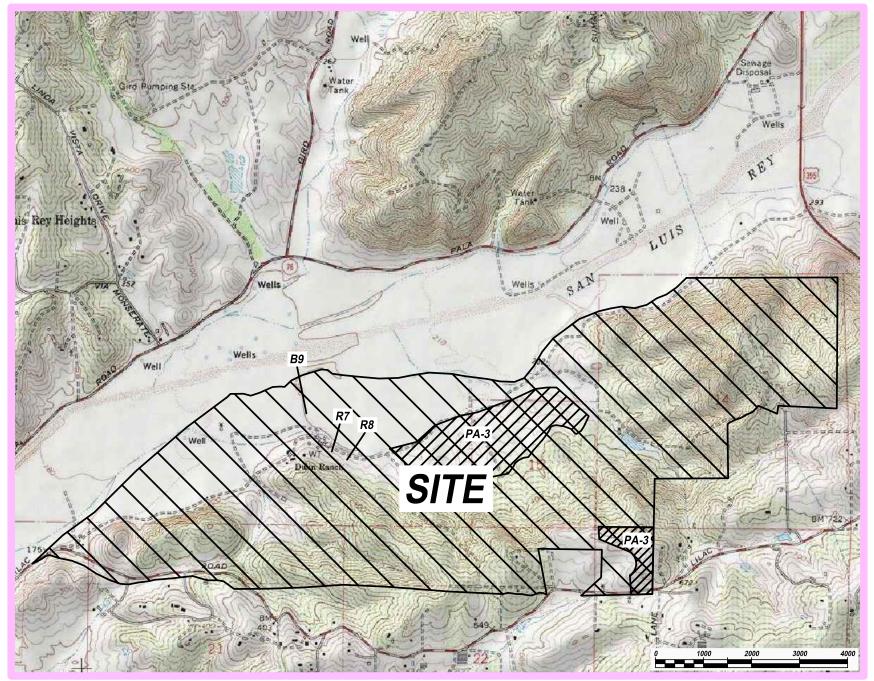
Dear Mr. Conrad:

In accordance with your request and authorization, this report presents the results of GeoSoils, Inc.'s (GSI) percolation feasibility study for onsite wastewater treatment within Planning Area PA-3, and select sites within the existing equestrian center property, at Ocean Breeze Ranch, in the community of Bonsall, San Diego County, California (see Figure 1). This report was prepared to provide: site geologic and groundwater conditions; leach line percolation feasibility testing results; proposed onsite wastewater treatment system design criteria; and a general review of site conditions and proposed development.

### SCOPE OF SERVICES

The scope of our services has included the following:

- 1. A review of available soils, geologic, and groundwater data for the site area including County design recommendations (see Appendix A).
- 2. A review of the "potential leach field and storm water basin BMP" exhibit, for building Parcel Nos. 382 through 396 (see Plate 1), which was provided by Project Design Consultants ([PDC], 2019).
- 3. Review of the "potential leach field sites in the vicinity of residential units (trailers) (R7 and R8), and barn/shop structure (B9), located within the equestrian center complex (see Plate 2), which was provided by Project Design Consultants ([PDC], 2019).



Rancho Monserate Country Club Rawhide Ranch CAMINO DEL REY OLD RIVER ROAD NOT TO SCALE Base Map: Google Maps, Copyright 2015 Google, Map Data Copyright 2015 Google

Base Map: TOPO!® © 2003 National Geographic, U.S.G.S. Bonsall Quadrangle, California -- San Diego Co., 7.5 Minute, dated 1975, current, 1975.

### GSI LEGEND



APPROXIMATE AREA OF PLANNING AREA 3

**R7** — APPROXIMATE LOCATION OF MOBILE HOME RESIDENTIAL, POTENTIAL LEACH FIELD AREA

R8 — APPROXIMATE LOCATION OF MOBILE HOME RESIDENTIAL, POTENTIAL LEACH FIELD AREA

B9 — APPROXIMATE LOCATION OF BARN/ SHOP LEACH FIELD AREA

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## SITE LOCATION MAP

Figure 1

- 4. Excavation and geologic logging of four (4) to six (6) percolation test borings for each potential leach field(Appendix B).
- 5. Excavation and geologic logging of one (1) additional test boring within selected potential leach fields, for the evaluation of the presence of groundwater. Each boring was advanced to a minimum depth of  $\pm 15$  feet below the generally lowest existing surface elevation within the study area (Appendix B).
- 6. Evaluation of percolation rates (Appendix C), based on current onsite testing, as it relates to the currently proposed construction.
- 7. Technical illustration of the locations of field percolation testing and proposed location of other proposed/existing improvements (see Plates 1 and 2).
- 8. Provide preliminary OWTS designs (pending review and approval by the controlling authorities), and preparation of this report and accompaniments.

### SITE DESCRIPTION

The percolation study areas consist of 15 equestrian estate parcels located with Planning Area PA-3, two (2) residential sites located on the south side of the existing equestrian facility, and a barn/shop area, also located within the equestrian facility grounds. These study areas are generally located along the southern margin of the San Luis Rey River Valley, both north and south of the existing Dulin Ranch Road, in the community of Bonsall, San Diego County, California (see Figure 1).

Topographically, Estate Parcels 383 through 395, and the two (2) residential sites (R7 and R8) are located across a gentle, north facing slope, with slope gradients generally on the order of less than 4:1 (h:v). The barn/shop site (B9) is located within the relatively flat lying terrain surrounding the main equestrian facility. Estate Parcel 396 is located along a broad ridgeline with gentle, north facing slopes, near the southeast corner of the overall study area.

### PROPOSED DEVELOPMENT

Based upon our review of the attached Plates, it is our understanding that new development will consist of the construction of single family residential structures on 15 "equestrian estate" parcels within Planning area PA-3, two (2) smaller residential "trailers" (R7 and R8), and a barn/shop (B9), located withing the existing equestrian center grounds. On a preliminary basis, we anticipate that the residential structures on the estate lots would be five (5) to six (6) bedrooms, the trailer sites anticipated to consist of two (2) to three (3) bedrooms, and the barn/shop containing a bathroom and possibly a sink. Onsite wastewater treatment for the structures are proposed to be accommodated by a

new septic tank and conventional gravity fed leach field system. The approximate locations of the parcels/sites and potential leach field areas are shown on Plates 1 and 2.

### **GEOLOGY**

In the Bonsall area during the mid to late Pleistocene (within the Quaternary-age), the granitic rocks belonging to the Peninsular Ranges Batholith have been eroded and alluvial deposits have since filled the lower valleys. Regional mapping by Tan (2007) indicates that the site is primarily underlain by Cretaceous-age granitic rock referred to as the Couser Canyon Tonalite. Pleistocene-age older alluvium (stream terrace deposits), and younger alluvium associated with deposits along the San Luis Rey River, also occurs in the site vicinity (Tan, 2007).

Based on mapping performed by this office, flat-lying ground within Planning Area PA-3 in the vicinity of (primarily north of) Dulin Ranch Road, is underlain by Holocene alluvial sediments. Lower slopes descending to the flood plain, and flatter than about 4:1 (h:v), are developed on deposits of older alluvium (stream terrace deposits). Steeper slopes and upland areas south of Dulin Ranch Road are primarily underlain by granitic bedrock. In general, geologic/soil conditions within the vicinity of the proposed onsite wastewater treatment systems may be characterized as follows:

- Parcels 382 through 395, and residential "trailer" sites (R7 and R8) are underlain with colluvial topsoils developed on underlying deposits of older alluvium. Colluvium and older alluvium generally consist of clayey sands, sandy clays, and silty sands.
- Parcel 396 is underlain with colluvial topsoils developed on underlying Cretaceous-age granitic bedrock. The underlying granitics are highly weathered (decomposed granitic rock), exhibiting silty sand to sand textures. Drilling within the parcel indicated decomposed conditions to the maximum depth explored of 15 feet.
- The barn/shop area (B9 on Plate 2) is underlain with deposits of Holocene-age alluvium, generally consisting of silty sand and sand.

### GROUNDWATER

In preparation of GSI (2015), during the month of March, 2014, the regional groundwater table was encountered at depths on the order of 13½ to 15½ feet below existing grades in the relatively flat-lying, alluviated and flood plain areas along the northern edge of PA-3. These depths generally correspond to approximate elevations ranging from about 189½ feet above Mean Sea Level (MSL), up gradient (north of PA-3), to approximately 178 feet MSL, down gradient, in areas to the west of PA-3, R7, R8, and B9. During GSI's

geotechnical evaluation (GSI, 2016a), groundwater was encountered in both the additional CPT soundings, and the hollow stem auger borings, at down gradient elevations of 178 to 179 feet MSL, west of PA-3. As such, groundwater levels appears to be relatively constant over the two-year period evaluated.

During this study, several "groundwater borings" were completed to depths of about 15 feet below grade throughout PA-3, and in the vicinity of sites R7, R8 and B9 (see Plate 1 and 2 for locations). Observations of these borings (GW-3 and GW-9) indicated some minor seepage at depth locally (likely due to recent rains), however, a subsurface water table was not encountered. To summarize, the groundwater elevation appears to be about 189 feet above Mean Sea Level (MSL) along the northern edge of PA-3, with the lowest parcel elevations (Parcels 391through 395) at elevations on the order of 214 feet MSL to 232 feet MSL (i.e., about 25 to 43 feet above the groundwater table), or greater. In the vicinity of the barn/shop (B9), the ground elevation is approximately 206 feet MSL, with no groundwater encountered to an elevation of about 191 feet MSL. Residential sites R7 (approximate elevation of 210 to 214 feet MSL) and R8 (approximate elevation of 216 to 218 feet MSL) are also well above the groundwater elevations evaluated. Based on the current study, and in light of previous work, groundwater elevations appear to have remained relatively constant, and appear to be greater than 10 feet below the bottom of the proposed leach lines. It is unlikely that high historic groundwater elevations will encroach upon the minimum separation required between the bottom of the proposed leach field, and the highest groundwater anticipated.

### LEACH FIELD PERCOLATION TESTING

Six (6) test borings (P-1 through P-6) were advanced within each potential leach field area, located within PA-3, R7 and R8, with four (4) test borings completed for the barn/shop site (B9), for onsite wastewater treatment percolation feasibility testing, in general accordance with the controlling authorities requirements of County of San Diego, Department of Environmental Health, Local Agency Management Program (LAMP) for Onsite Wastewater Treatment Systems (2015), and San Diego County Department of Environmental Health ([SDCDEH], 2010a, and 2010b) for such testing. Percolation testing was performed within all of the boring excavations at depths of about 4 to 5 feet (see Appendix B) to evaluate site conditions with respect to the proposed OWTS. In addition, as per the requirements of the controlling authorities, one (1) relatively deep test boring (GW-1 through GW-11) was advanced within the vicinity of selected potential leach fields located at the lower elevations, or in isolated areas, to a depth of 15 feet, to assess the presence or absence of groundwater within 5 feet of the bottom elevations of the proposed leach fields, and to evaluate the depth to any underlying "hardpan." Test holes were staked and flagged, and identified with a test hole number, the depth of the test boring, and the Lot number. The onsite percolation testing was performed by an engineering geologist from our firm. All percolation test data sheets are included in Appendix C. Procedures for testing are outlined briefly below:

### **Procedure**

### **Test Holes:**

- 1. Auger borings (holes), a minimum of 6 inches in diameter, were advanced to a depth of approximately 5 feet.
- 2. Upon completion of the test borings, the sides and bottom of the borings were scarified with a wire brush, and the loose material removed from the boring.
- 3. After the holes were completed and cleaned, 2 inches of gravel was placed on the bottom of the hole.
- 4. A perforated pipe was then installed within the hole to facilitate accurate field measurements and prevent caving during testing and the pre-soak period.

### Sandy Soil Test:

After the installation of the perforated pipe, the percolation cup was filled to approximately ±8 inches over the gravel. Two (2) consecutive measurements were conducted at intervals of approximately 25 minutes. Less than 6 inches of water seeped away during each of the two (2) measurement intervals, therefore the pre-soak period was initiated.

### **Pre-Soaking:**

A water level of at least 12 to 14 inches was maintained above the gravel layer within each hole for a minimum of 4 hours, then allowed to fall overnight. After approximately 17 hours (the next day), the water in all test borings was observed to have completely seeped away. Based on this criteria, percolation testing was performed in accordance with methodology for CASE 2 conditions per LAMP (2015) and SDCDEH (2010b).

### Testing:

Percolation testing measurements were made the following day after required pre-soak period with respect to CASE 2 conditions. Water was brought to approximately 6 inches above the gravel layer and the drop in the water level was measured from a fixed reference point, refilling to  $\pm 6$  inches over the gravel after each measurement. The series of measurements were taken for a minimum of four (4) hours, at time intervals of 30 minutes. The percolation test reports are provided in Appendix C.

#### Locations:

The locations of the percolation tests performed were chosen to correspond with the anticipated leach field areas relative to the proposed residential developments (see Plates 1 and 2). The locations of test areas were easily identified by measurements relative to existing improvements and features shown on Plates 1 and 2.

### Accuracy:

All test measurements were read to the nearest 1/16 of an inch.

Page 6

Calculations from our field tests indicate that percolation rates (P-1 through P-6) at a depth of 3 to 5 feet vary from approximately 1.4 to 290 minutes/inch, however, most of the tests indicate rates ranging between 30 and 70 minutes/inch. The average percolation rate is applied for design, which also uses the average stabilization rate calculated from each individual percolation test. Based on our review of the data, the design percolation rate is recommended to use the average of the six (6) test results obtained (see Appendix C).

Based on the above, the following system designs and general recommendations are provided (pending review by the controlling authorities). The design parameters are based on DEH criteria, and our experience on sites with similar geologic conditions.

### Onsite Wastewater Treatment (Leach Field) System Design

As per the requirements of the controlling authorities, all onsite wastewater disposal systems should be located within <u>native</u> onsite soil materials.

Final approval of the OWTS design provided herein will be based on review by the SDCDEH. The following table, and "percolation test reports" (see Appendix C) present the percolation rates obtained during our investigation, and general design criteria.

| PARCEL/BUILDING<br>NUMBER | PERCOLATION<br>RATE (t) IN<br>MINUTES/INCH | NUMBER OF<br>BEDROOMS | SEPTIC TANK<br>SIZE (Gal.) | TOTAL LENGTH<br>OF LEACH LINE<br>(FT.)* |
|---------------------------|--|-----------------------|----------------------------|---|
| 382                       | 43.65                                      | 5-6                   | 1,500                      | 655                                     |
| 383                       | 65.68                                      | 5-6                   | 1,500                      | 760                                     |
| 384                       | 64.60                                      | 5-6                   | 1,500                      | 750                                     |
| 385                       | 62.29                                      | 5-6                   | 1,500                      | 730                                     |
| 386                       | 72.90                                      | 5-6                   | 1,500                      | 830                                     |
| 387                       | 29.31                                      | 5-6                   | 1,500                      | 585                                     |
| 388                       | 68.72                                      | 5-6                   | 1,500                      | 790                                     |
| 389***                    | 264.09                                     | 5-6                   | 1,500                      |   |
| 390                       | 43.49                                      | 5-6                   | 1,500                      | 655                                     |
| 391                       | 35.76                                      | 5-6                   | 1,500                      | 615                                     |
| 392                       | 50.45                                      | 5-6                   | 1,500                      | 675                                     |
| 393                       | 48.45                                      | 5-6                   | 1,500                      | 675                                     |
| 394***                    | 149.17                                     | 5-6                   | 1,500                      |   |
| 395***                    | 290  | 5-6                   | 1,500                      |   |
| 396                       | 20.69                                      | 5-6                   | 1,500                      | 530                                     |

| PARCEL/BUILDING<br>NUMBER | PERCOLATION<br>RATE (t) IN<br>MINUTES/INCH | NUMBER OF<br>BEDROOMS | SEPTIC TANK<br>SIZE (Gal.) | TOTAL LENGTH<br>OF LEACH LINE<br>(FT.)* |
|---------------------------|--|-----------------------|----------------------------|---|
| R7                        | 118.06                                     | 2-3                   | 1,000                      | 1,425                                   |
| R8***                     | 141.22                                     | 2-3                   | 1,000                      |   |
| **B9 (Shop)               | 1.38                                       | 1                     | 1,000                      | 200'                                    |

<sup>\*</sup> Note system design is for percolation trenches (Leach Lines) 4 feet deep x 1.5 feet wide, per LAMP (2015) and SDCDEH (2010a, 2010b)

In addition to the above area, a 100 to 200 percent expansion area in case of primary system failure, will need to be included in design considerations. Any changes to the location of the proposed OWTS, the estimated size of the septic tank, or building use, should be reviewed by this office. Depending upon the nature of any changes, and the requirements of the reviewing entity, additional percolation testing may be warranted.

#### Parcels 389, 394, 395, and Residential Site R8

Percolation testing to date indicated percolation rates in excess of the maximum allowed rate of 120 minutes/inch for onsite waste disposal. It is recommended that these potential fields are re-evaluated, including either percolation testing within other areas of the parcel(s), and/or testing at a greater depth.

#### Structure B9 (Shop)

Based on the general requirements set forth in LAMP (2015) and SDCDEH (2010b) for commercial structures, the barn/shop may also be evaluated for "day workers at schools/offices per shift" (i.e., 15 gallons/person/day) x 2 to 6 persons, a "Flow" of 30 to 90 gallons/day has been evaluated. For Flow = 90 gallons/day, a 1,000-gallon septic tank should be utilized for design of the onsite wastewater treatment system.

| PERCOLATION RATE<br>(T) IN<br>MINUTES/INCH | APPLICATION RATE<br>(A.R.) IN<br>GALLONS/FT2/DAY | ABSORPTION<br>AREA REQUIRED<br>(SQ FT.) | TOTAL LENGTH<br>OF LEACH LINE (FT.)* |
|--|--|---|--------------------------------------|
| 2  | 3.5  | 25                                      | 20' + 100 % Expansion Area           |

<sup>\*</sup> Note system design is for percolation trenches (Leach Lines) 4 feet deep x 1.5 feet wide, per LAMP (2015) and SDCDEH (2010a, and 2010b)

<sup>\*\*</sup>An alternate design, based on commercial criteria presented in LAMP (2015)/SDCDEH (2010b) is presented below.

<sup>\*\*\*</sup>Percolation rates exceed the maximum percolation rate allowable (i.e., above 120 minutes/inch). Re-evaluation of these fields is recommended.

#### **CONCLUSIONS AND RECOMMENDATIONS**

Based upon our review of the proposed development, our current leach line testing and engineering and geologic analyses, it is our opinion that the proposed OWTS for the project appear suitable for their intended use from a wastewater treatment and geologic feasibility viewpoint.

The following recommendations should be incorporated into the design and construction of the proposed onsite wastewater treatment systems. Based upon the leach line (infiltrator chamber) and seepage pit feasibility testing results obtained, our geologic and engineering analysis, design criteria established by LAMP and SDCDEH, the onsite wastewater treatment systems should be constructed as follows:

#### General

- 1. Each leach line trench should be excavated into undisturbed native onsite materials. Each leach line trench should be a minimum of 4 feet deep, maximum of 5 feet deep, and 1.5 feet wide to correspond to the depths of testing conducted.
- Any changes to the proposed property usage or changes/additions to the bathroom configurations/locations should be made in accordance with this report, and LAMP and SDCDEH requirements.
- 3. As per RWQCB requirements, water softening devices, requiring the use of soluble salts, are <u>not</u> to be utilized in conjunction with the OWTS (infiltrator chambers), as the soluble salts are known to adversely effect the quality of groundwater aquifers.
- 4. Observation by GSI and/or SDCDEH personnel should be completed during construction.

Based on the requirements of LAMP and SDCDEH, the following table presents some general setback criteria for onsite wastewater treatment systems:

| MINIMUM HORIZONTAL DISTANCE IN CLEAR FROM | TO SEPTIC TANK | TO LEACH FIELD |
|---|----------------|----------------|
| Building or Structures                    | 5 feet         | 8 feet         |
| Property Line                             | 5 feet         | 5 feet         |
| Water Supply Wells                        | 100 feet       | 100 feet       |
| Septic Tank                               |                | 5 feet         |
| Drainage Course                           |                | 100 feet       |
| Road Easements                            |                | 8 feet         |
| Onsite Domestic Water Service Line        |                | 25 feet        |

| MINIMUM HORIZONTAL<br>DISTANCE IN CLEAR FROM | TO SEPTIC TANK | TO LEACH FIELD                  |
|--|----------------|---------------------------------|
| Cut slopes                                   |                | 5:1 (h:v) from top of cut slope |
| Leach Lines                                  | 5 feet         | 10 feet                         |

Additional setback requirements are presented in LAMP (2015) and SDCDEH (2010a, and 2010b).

#### **Onsite Wastewater Treatment System**

- Based on the available data presented within this report and utilizing the recommendations set forth, it is the judgement of this firm that there is sufficient area onsite for the newly proposed OWTS and the required 100 percent expansion areas that meet current codes and standards of the LAMP and SDCDEH requirements. It should be noted that percolation rates within Lots 389, 394, 395, and residence R8 exceed the maximum percolation rate of 120 minutes/inch and are considered unsuitable, per SDCDEH (2010a, 2010b), and should be further evaluated through the performance of additional percolation testing within the vicinity of the proposed leach field(s).
- As indicated previously, each leach line trench should be excavated into undisturbed native onsite materials. Each leach line trench should be a minimum of 3 feet to 5 feet deep, and 1.5 feet wide to correspond to the depths of testing conducted. Leach line construction shall be per LAMP (2015), and SDCDEH (2010a, 2010b).
- Based on the existing conditions and available data, it appears that the naturally occurring regional groundwater table will not encroach within 10 feet of the proposed onsite wastewater treatment systems.
- Based on the materials exposed in our test pits and our observations, the natural occurring body of minerals and organic matter at the proposed OWTS disposal area contains earthen materials classified per the United Soil Classification System ([USCS], 1979) as SM (silty sand), clayey sand/sandy clay (SC), and SP/SW (sand).
- Based on the available data presented within this report and field testing data accumulated, it is our professional opinion that groundwater will not encroach within the current allowable limit set forth by the LAMP and SDCDEH requirements.

#### **PLAN REVIEW**

Once site development plans are available, these plans should be provided to this office for review and comment from an OWTS standpoint. Any proposed changes/additions to the bathroom configurations and/or locations should be made so that the proposed OWTS area is in accordance with this report. In addition, based on changes to the plans, if proposed, and/or final review by the County, additional percolation studies and/or field exploration may be necessary.

#### **INVESTIGATION LIMITATIONS**

The materials encountered on the project site and utilized for our analysis are believed representative of the area; however, soil and bedrock materials vary in character between excavations and natural outcrops or conditions exposed during field testing and/or mass grading. Site conditions may vary due to seasonal changes or other factors.

Inasmuch as our study is based upon our review and engineering analyses and laboratory data, the conclusions and recommendations are professional opinions. These opinions have been derived in accordance with current standards of practice, and no warranty is express or implied. Standards of practice are subject to change with time. GSI assumes no responsibility or liability for work or testing performed by others, or their inaction; or work performed when GSI is not requested to be onsite, to evaluate if our recommendations have been properly implemented. Use of this report constitutes an agreement and consent by the user to all the limitations outlined above, notwithstanding any other agreements that may be in place. In addition, this report may be subject to review by the controlling authorities.

The opportunity to be of service is sincerely appreciated. If you should have any questions, please do not hesitate to contact our office.

ALESIONAL GE Respectfully submitted,

GeoSoils, Inc.

Robert G. Crisman

Engineering Geologist, CEG 1934

PE OF CALIFORNIE Engineering Geologist, CEG 1340

Certified Engineering Geologist

MJS/RGC/JPF/jh

Attachments: Appendix A - References

Certified Engineering Geologist

Appendix B - Test Boring Logs (Groundwater Borings)

Appendix C - Percolation Test Reports Plate 1 - Potential Leach Field Map PA-3

Plate 2 - Potential Leach Field Map Building Sites R7, R8, B9

Distribution: (4) Addressee

### APPENDIX A

### **REFERENCES**

#### **APPENDIX A**

#### **REFERENCES**

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### **APPENDIX B**

# TEST BORING LOGS (GROUNDWATER BORINGS)

| Ge                        | oS   | Soil        | s, In                | C.          |                    |              |                |         | BORING LOG   |
|---------------------------|------|-------------|----------------------|-------------|--------------------|--------------|----------------|---------|--|
| PRO                       | JEC1 | Γ: Pla      | nning A              | rea 3 o     | RANCH<br>f Ocean   | Breeze       | e Rand         | ch      | W.O. <u>6960-A6-SC</u> BORING <u>GW-1</u> SHEET <u>1</u> OF <u>1</u>     |
|                           |      | Incl        | luding F             | Residen     | ces R7a            | nd R8,       | and E          | Barn B9 | DATE EXCAVATED 4/16/19 LOGGED BY: MK APPROX. ELEV.: 221' MSL             |
|                           |      |             |                      |             |                    |              |                |         | SAMPLE METHOD: Solid Flight Auger  |
|                           | ,    | Samp        | ole                  |             |                    |              |                |         |  |
| Depth (ft.)               | Bulk | Undisturbed | Blows/Ft.            | USCS Symbol | Dry Unit Wt. (pcf) | Moisture (%) | Saturation (%) |         | Material Description   |
| 0 -                       |      |             |                      | SC          |                    |              |                |         | @ 0' CLAYEY SAND, reddish brown, dry, loose; trace roots.                |
| 5 <b>-</b>                |      |             |                      |             |                    |              |                |         | @ 3' CLAYEY SAND, dark brown, wet, loose to medium dense.                |
| -<br>-<br>  -             |      |             |                      |             |                    |              |                |         | @ 6' CLAYEY SAND, brown, wet, dense.                                     |
| 10 -                      |      |             |                      |             |                    |              |                |         |  |
| -                         |      |             |                      |             |                    |              |                |         |  |
| 15                        |      |             |                      |             |                    |              |                |         |  |
| 15 <del>-</del><br>-<br>- |      |             |                      |             |                    |              |                |         | Total Depth = 15' No Groundwater/Caving Encountered Backfilled 4-16-2019 |
| 20 –                      |      |             |                      |             |                    |              |                |         |  |
| -                         |      |             |                      |             |                    |              |                |         |  |
| -                         |      |             |                      |             |                    |              |                |         |  |
| 25 -                      |      |             |                      |             |                    |              |                |         |  |
| ]                         |      |             |                      |             |                    |              |                |         |  |
| ]                         |      |             |                      |             |                    |              |                |         |  |
| 30 -                      |      |             |                      |             |                    |              |                |         |  |
| -                         |      |             |                      |             |                    |              |                |         |  |
|                           |      |             |                      |             |                    |              |                |         | _  |
|                           |      |             | netratio<br>, Ring S |             |                    |              |                |         | ੁ Groundwater<br>ੁ Seepage   |
|                           |      |             |                      |             |                    |              |                |         | GeoSoils, Inc.   |

| Ge                        | oS   |             | s, In                |             |                    |              |                |         | BORING LOG   |
|---------------------------|------|-------------|----------------------|-------------|--------------------|--------------|----------------|---------|--|
| PRO                       | JEC1 | T: Pla      | nning A              | rea 3 o     | RANCH<br>f Ocean   | Breeze       | e Ranc         | ch      | W.O. <u>6960-A6-SC</u> BORING <u>GW-2</u> SHEET <u>1</u> OF <u>1</u>     |
|                           |      | Inc         | luding F             | Residen     | ces R7a            | nd R8,       | and E          | Barn B9 | DATE EXCAVATED 4/16/19 LOGGED BY: MK APPROX. ELEV.: 235' MSL             |
|                           |      |             |                      |             |                    |              |                |         | SAMPLE METHOD: Solid Flight Auger  |
|                           | ;    | Samp        | ole                  |             | _                  |              |                |         |  |
| Depth (ft.)               | Bulk | Undisturbed | Blows/Ft.            | USCS Symbol | Dry Unit Wt. (pcf) | Moisture (%) | Saturation (%) |         | Material Description   |
| 0 -                       |      |             |                      | SC          |                    |              |                |         | @ 0' CLAYEY SAND, reddish brown, dry, loose.                             |
| 5 <del>-</del>            |      |             |                      |             |                    |              |                |         | @ 3' CLAYEY SAND, dark brown, damp, medium dense.                        |
| 10 -                      |      |             |                      |             |                    |              |                |         | @ 7' CLAYEY SAND, brown, moist, medium dense to dense.                   |
| -<br>-<br>-               |      |             |                      |             |                    |              |                |         | @ 12' CLAYEY SAND, dark brown, moist, dense.                             |
| 15 <del>-</del><br>-<br>- |      |             |                      |             |                    |              |                |         | Total Depth = 15' No Groundwater/Caving Encountered Backfilled 4-16-2019 |
| 20 -                      |      |             |                      |             |                    |              |                |         |  |
| -<br>25 <del>-</del><br>- |      |             |                      |             |                    |              |                |         |  |
| 30 -                      |      |             |                      |             |                    |              |                |         |  |
| -                         | 4-   |             |                      |             |                    |              |                |         | <b>▼</b> Community   |
|                           |      |             | netratio<br>, Ring S |             |                    |              |                |         | ₹ Groundwater  |
| ĺ                         |      |             |                      |             |                    |              |                |         | GeoSoils, Inc.   |

| Ge              | oS       | Soil        | s, In     | C.          |                    |              |                |         | BORING LOG   |
|-----------------|----------|-------------|-----------|-------------|--------------------|--------------|----------------|---------|--|
| PRC             | JEC7     | Γ: Pla      | nning A   | rea 3 o     | RANCH<br>f Ocean   | Breeze       | e Rand         | ch      | W.O. 6960-A6-SC BORING GW-3 SHEET 1 OF 1   |
|                 |          | Inc         | luding F  | Residen     | ces R7a            | ind R8,      | and E          | Barn B9 | DATE EXCAVATED 4/16/19 LOGGED BY: MK APPROX. ELEV.: 260' MSL                                     |
|                 |          |             |           |             |                    |              |                |         | SAMPLE METHOD: Solid Flight Auger  |
|                 |          | Samp        | ole       |             | _                  |              |                |         |  |
| Depth (ft.)     | Bulk     | Undisturbed | Blows/Ft. | USCS Symbol | Dry Unit Wt. (pcf) | Moisture (%) | Saturation (%) |         | Material Description   |
| 0 -             |          |             |           | SM/<br>SC   |                    |              |                |         | @ 0' SILTY SAND/SILTY CLAY, brown, dry, loose; trace roots.                                      |
| 5 <del>-</del>  |          |             |           | SC/CL       |                    |              |                |         | @ 4½' SILTY SAND/SANDY CLAY, dark brown, moist, loose.   |
| 10              | ZII.     |             |           | CL          |                    |              |                |         | @ 7½' SANDY CLAY, dark brown, wet, medium dense.<br>@ 7½' Water seepage zone.                    |
| 10 -            |          |             |           | sc          |                    |              |                |         | @ 13' CLAYEY SAND, grayish brown, wet, dense.  |
| 15 <del>-</del> |          |             |           |             |                    |              |                |         |  |
| 20 –            |          |             |           |             |                    |              |                |         |  |
| -               |          |             |           |             |                    |              |                |         | Total Depth = 20' Water Seepage Zone Encountered @ 7-8' No Caving Encountered Backfilled 4-16-19 |
| 25 -            |          |             |           |             |                    |              |                |         |  |
| -               |          |             |           |             |                    |              |                |         |  |
| 30 –            |          |             |           |             |                    |              |                |         |  |
| -               |          |             |           |             |                    |              |                |         |  |
| _               |          |             |           |             |                    |              |                |         |  |
|                 |          |             | netratio  |             |                    | 1            | ı              | ı       | ₹ Groundwater<br>♀ Seepage   |
|                 | . raiott |             | ,y C      | .a.ripio    |                    |              |                |         | GeoSoils, Inc.   |
|                 |          |             |           |             |                    |              |                |         | PLATE  |

| Ge                   | eoS  | Soil        | s, In     | C.          |                    |              |                |         | BORING LOG   |
|----------------------|------|-------------|-----------|-------------|--------------------|--------------|----------------|---------|--|
| PRO                  | JECT | T: Pla      | nning A   | rea 3 o     | RANCH<br>f Ocean   | Breeze       | e Rand         | ch      | W.O. 6960-A6-SC BORING GW-4 SHEET 1 OF 1                                 |
|                      |      | Inc         | uding F   | Residen     | ces R7a            | nd R8,       | and E          | Barn B9 | DATE EXCAVATED 4/17/19 LOGGED BY: MK APPROX. ELEV.: 266' MSL             |
|                      |      |             |           |             |                    |              |                |         | SAMPLE METHOD: Solid Flight Auger  |
|                      | ;    | Samp        | ole       |             |                    |              |                |         |  |
| Depth (ft.)          | Bulk | Undisturbed | Blows/Ft. | USCS Symbol | Dry Unit Wt. (pcf) | Moisture (%) | Saturation (%) |         | Material Description   |
| 0 -                  |      |             |           | SC/<br>SM   |                    |              |                |         | @ 0' CLAYEY SAND/SILTY SAND, brown, dry, loose.                          |
| 5 –                  |      |             |           |             |                    |              |                |         | @ 3' CLAYEY SAND/SILTY SAND, dark brown, moist, medium dense/ stiff.     |
| -<br>-<br>-          |      |             |           |             |                    |              |                |         | @ 6' CLAYEY SAND/SILTY SAND, dark brown, moist, dense/stiff.             |
| 10 -                 |      |             |           |             |                    |              |                |         |  |
| -<br>15 <del>-</del> |      |             |           |             |                    |              |                |         |  |
| -<br>-<br>-          |      |             |           |             |                    |              |                |         | Total Depth = 15' No Groundwater/Caving Encountered Backfilled 4-17-2019 |
| 20 –                 |      |             |           |             |                    |              |                |         |  |
| -                    |      |             |           |             |                    |              |                |         |  |
| 25 -                 |      |             |           |             |                    |              |                |         |  |
| -                    |      |             |           |             |                    |              |                |         |  |
| 30 -                 |      |             |           |             |                    |              |                |         |  |
| -<br>-<br>           |      |             |           |             |                    |              |                |         |  |
|                      |      |             | netratio  |             |                    |              |                |         | ₹ Groundwater  |
|                      |      |             | -         | •           |                    |              |                |         | GeoSoils, Inc.   |

| Ge                             | eoS  | Soil        | s, In              | C.          |                    |              |                |         | BORING LOG   |
|--------------------------------|------|-------------|--------------------|-------------|--------------------|--------------|----------------|---------|--|
| PRO                            | JEC1 | T: Pla      | nning A            | rea 3 o     | RANCH<br>f Ocean   | Breeze       | e Rand         | ch      | W.O. <u>6960-A6-SC</u> BORING <u>GW-5</u> SHEET <u>1</u> OF <u>1</u>     |
|                                |      | Inc         | uding F            | Residen     | ces R7a            | nd R8,       | and E          | Barn B9 | DATE EXCAVATED 4/17/19 LOGGED BY: MK APPROX. ELEV.: 289' MSL             |
|                                |      |             |                    |             |                    |              |                |         | SAMPLE METHOD: Solid Flight Auger  |
|                                |      | Samp        | ole                |             |                    |              |                |         |  |
| Depth (ft.)                    | *    | Undisturbed | Blows/Ft.          | USCS Symbol | Dry Unit Wt. (pcf) | Moisture (%) | Saturation (%) |         | Material Description   |
| 0 De                           | Bulk | Š           | Blo                | SC SC       | و                  | Mo           | Sat            | 7772    | @ 0' CLAYEY SAND, reddish brown, dry, loose; trace roots.                |
| -<br>-<br>-<br>5 —             |      |             |                    |             |                    |              |                |         | @ 3½' CLAYEY SAND, brown, damp, loose to medium dense.                   |
| -<br>-<br>  -                  |      |             |                    |             |                    |              |                |         | @ 7' CLAYEY SAND, brown, moist, medium dense to dense.                   |
| 10 <del>-</del><br>-<br>-<br>- |      |             |                    | SM          |                    |              |                |         | @ 10' SILTY SAND, brown, moist, dense.                                   |
| 15 —                           |      |             |                    |             |                    |              |                |         | Total Depth = 15' No Groundwater/Caving Encountered Backfilled 4-17-2019 |
|                                |      |             | netratio<br>Ring S |             |                    |              |                |         | ₹ Groundwater<br>♀ Seepage   |
|                                |      |             |                    |             |                    |              |                |         | GeoSoils, Inc.   |

| Ge                   | oS   | Soil        | s, In                | C.          |                    |              |                |         | BORING LOG   |
|----------------------|------|-------------|----------------------|-------------|--------------------|--------------|----------------|---------|--|
| PRO                  | JEC1 | T: Pla      | nning A              | rea 3 o     | RANCH<br>f Ocean   | Breeze       | e Rand         | ch      | W.O. <u>6960-A6-SC</u> BORING <u>GW-6</u> SHEET <u>1</u> OF <u>1</u>     |
|                      |      | Inc         | luding F             | Residen     | ces R7a            | nd R8,       | and E          | Barn B9 | DATE EXCAVATED 4/17/19 LOGGED BY: MK APPROX. ELEV.: 236' MSL             |
|                      |      |             |                      |             |                    |              |                |         | SAMPLE METHOD: Solid Flight Auger  |
|                      | ;    | Samp        | ole                  |             |                    |              |                |         |  |
| Depth (ft.)          | Bulk | Undisturbed | Blows/Ft.            | USCS Symbol | Dry Unit Wt. (pcf) | Moisture (%) | Saturation (%) |         | Material Description   |
| 0 -                  |      |             |                      | SC          |                    |              |                |         | @ 0' CLAYEY SAND, reddish brown, dry, loose.                             |
| 5 <b>-</b>           |      |             |                      |             |                    |              |                |         | @ 3' CLAYEY SAND, brown, damp, medium dense/stiff.                       |
| -                    |      |             |                      |             |                    |              |                |         | @ 6½' CLAYEY SAND, dark brown, wet, medium dense to dense.               |
| 10 -                 |      |             |                      |             |                    |              |                |         |  |
| -<br>15 <del>-</del> |      |             |                      |             |                    |              |                |         |  |
| -<br>-<br>  -        |      |             |                      |             |                    |              |                |         | Total Depth = 15' No Groundwater/Caving Encountered Backfilled 4-17-2019 |
| 20 –                 |      |             |                      |             |                    |              |                |         |  |
| -                    |      |             |                      |             |                    |              |                |         |  |
| -                    |      |             |                      |             |                    |              |                |         |  |
| 25 -                 |      |             |                      |             |                    |              |                |         |  |
| -                    |      |             |                      |             |                    |              |                |         |  |
| -                    |      |             |                      |             |                    |              |                |         |  |
| 30 -                 |      |             |                      |             |                    |              |                |         |  |
| -                    |      |             |                      |             |                    |              |                |         |  |
|                      | 4    |             |                      |             |                    |              |                |         |  |
|                      |      |             | netratio<br>, Ring S |             |                    |              |                |         | ₹ Groundwater  |
|                      |      |             |                      |             |                    |              |                |         | GeoSoils, Inc.   |

| Ge                             | oS       |             | s, In              |             |                    |              |                |          | BORING LOG   |
|--------------------------------|----------|-------------|--------------------|-------------|--------------------|--------------|----------------|----------|--|
| PRO                            | JEC1     | T: Pla      | nning A            | rea 3 o     | RANCH<br>f Ocean   | Breeze       |                |          | W.O. <u>6960-A6-SC</u> BORING <u>GW-7</u> SHEET <u>1</u> OF <u>1</u>                               |
| l                              |          | Inc         | luding F           | kesiden     | ces R7a            | na R8,       | and E          | sarn B9  | DATE EXCAVATED 4/18/19 LOGGED BY: MK APPROX. ELEV.: 232' MSL                                       |
|                                |          |             |                    |             |                    |              |                |          | SAMPLE METHOD: Solid Flight Auger  |
|                                |          | Samp        | ole                |             |                    |              |                |          |  |
| Depth (ft.)                    | Bulk     | Undisturbed | Blows/Ft.          | USCS Symbol | Dry Unit Wt. (pcf) | Moisture (%) | Saturation (%) |          | Material Description   |
| 0 -                            |          |             |                    | SC          |                    |              |                |          | @ 0' CLAYEY SAND, reddish brown, dry, loose. @ 3½' CLAYEY SAND, reddish brown, damp, medium dense. |
| 5 <del>-</del><br>-<br>-       |          |             |                    |             |                    |              |                |          | @ 8' CLAYEY SAND, yellowish brown, damp, medium dense to dense.                                    |
| 10                             |          |             |                    |             |                    |              |                |          | @ 12' CLAYEY SAND, grayish brown, damp, medium dense.  |
| 15 <del>-</del><br>-<br>-<br>- |          |             |                    |             |                    |              |                |          | Total Depth = 15' No Groundwater/Caving Encountered Backfilled 4-18-2019                           |
| 20 -                           |          |             |                    |             |                    |              |                |          |  |
| 25 -<br>-<br>-                 |          |             |                    |             |                    |              |                |          |  |
| 30 -                           |          |             |                    |             |                    |              |                |          |  |
|                                |          |             | enetration, Ring S |             |                    | l            | l              | <u>I</u> | ₹ Groundwater  |
|                                | . raisti | ar DGU      | , rang d           | ampie_      |                    |              |                |          | GeoSoils, Inc.   |

| Ge              | oS   | Soil        | s, In                | C.          |                    |              |                |         | BORING LOG   |
|-----------------|------|-------------|----------------------|-------------|--------------------|--------------|----------------|---------|--|
| PRC             | JEC1 | T: Pla      | nning A              | rea 3 o     | RANCH<br>f Ocean   | Breeze       | e Ranc         | ch      | W.O. 6960-A6-SC BORING GW-8 SHEET 1 OF 1                                 |
|                 |      | Inc         | luding F             | Residen     | ces R7a            | nd R8,       | and B          | Barn B9 | DATE EXCAVATED 4/18/19 LOGGED BY: MK APPROX. ELEV.: 251' MSL             |
|                 |      |             |                      |             |                    |              |                |         | SAMPLE METHOD: Solid Flight Auger  |
|                 |      | Samp        | ole                  |             | <u></u>            |              |                |         |  |
| Depth (ft.)     | Bulk | Undisturbed | Blows/Ft.            | USCS Symbol | Dry Unit Wt. (pcf) | Moisture (%) | Saturation (%) |         | Material Description   |
| 0               |      |             |                      | SC          |                    |              |                |         | @ 0' CLAYEY SAND, reddish brown, dry, loose; trace roots.                |
| -               |      |             |                      |             |                    |              |                |         | @ 2½' CLAYEY SAND, reddish brown, damp, loose to medium dense.           |
| 5 –             |      |             |                      |             |                    |              |                |         | @ 4' CLAYEY SAND, brown, moist, medium dense.                            |
| 10 —            |      |             |                      | SC/CL       |                    |              |                |         | @ 8½' CLAYEY SAND/CLAY, grayish brown, moist, dense/stiff.               |
| 15 <del>-</del> |      |             |                      |             |                    |              |                |         | T 1 1 D 11 451   |
| -               |      |             |                      |             |                    |              |                |         | Total Depth = 15' No Groundwater/Caving Encountered Backfilled 4-18-2019 |
| 20 –            |      |             |                      |             |                    |              |                |         |  |
| -               |      |             |                      |             |                    |              |                |         |  |
| 25 –            |      |             |                      |             |                    |              |                |         |  |
| -               |      |             |                      |             |                    |              |                |         |  |
| -               |      |             |                      |             |                    |              |                |         |  |
| 30 -            |      |             |                      |             |                    |              |                |         |  |
| -               |      |             |                      |             |                    |              |                |         |  |
| -               |      |             |                      |             |                    |              |                |         |  |
|                 |      |             | netratio<br>, Ring S |             |                    |              |                |         | Groundwater  ∑ Seepage   |
|                 |      |             |                      |             |                    |              |                |         | GeoSoils, Inc.   |

| Ge   | GeoSoils, Inc. BORING LOG  |             |                   |             |                    |              |                |         |  |  |
|--|--|-------------|-------------------|-------------|--------------------|--------------|----------------|---------|--|--|
| PRO  | OCEAN BREEZE RANCH PROJECT: Planning Area 3 of Ocean Breeze Ranch W.O. 6960-A6-SC BORING GW-9 SHEET 1 OF 1 |             |                   |             |                    |              |                |         |  |  |
| Including Residences R7and R8, and Barn B9 |  |             |                   |             |                    |              | , and E        | Barn B9 | DATE EXCAVATED 4/18/19 LOGGED BY: MK APPROX. ELEV.: 210' MSL   |  |
|  | SAMPLE METHOD: Solid Flight Auger  |             |                   |             |                    |              |                |         |  |  |
|  | ;  | Samp        | ole               |             |                    |              |                |         |  |  |
| Depth (ft.)                                | Bulk   | Undisturbed | Blows/Ft.         | USCS Symbol | Dry Unit Wt. (pcf) | Moisture (%) | Saturation (%) |         | Material Description   |  |
| 5  | <b>Y</b> .   |             |                   | SC<br>SM    |                    |              |                |         | <ul> <li>@ 0' CLAYEY SAND, light brown, dry, loose.</li> <li>@ 1' SILTY SAND, brown, damp, medium dense.</li> <li>@ 3½' SANDY CLAY/CLAY, brown, damp, medium dense.</li> <li>@ 7½' CLAY, olive brown, wet, stiff.</li> <li>@ 7½' Seepage into boring.</li> <li>@ 8' Seepage absent.</li> </ul> |  |
| 20   |  |             |                   |             |                    |              |                | ;       | Total Depth = 15' Seepage Zone from 7½-8' No Caving Encountered Backfilled 4-18-2019   |  |
|  |  |             | netration, Ring S |             |                    |              |                |         | ₹ Groundwater  |  |
|  |  |             |                   |             |                    |              |                |         | GeoSoils, Inc.   |  |

| Ge   | GeoSoils, Inc. BORING LOG |             |                      |                       |                    |              |                |  |  |
|--|---------------------------|-------------|----------------------|-----------------------|--------------------|--------------|----------------|--|--|
| OCEAN BREEZE RANCH  PROJECT: Planning Area 3 of Ocean Breeze Ranch  Including Posidences Providences P |                           |             |                      |                       |                    |              |                |  |  |
| Including Residences R7and R8, and Barn B9   |                           |             |                      |                       |                    |              |                | Barn B9  | DATE EXCAVATED 4/19/19 LOGGED BY: MK APPROX. ELEV.: 206' MSL   |
| SAMPLE METHOD: Solid Flight Auger  |                           |             |                      |                       |                    |              |                |  |  |
|  |                           | Samp        | ole                  |                       |                    |              |                |  |  |
| Depth (ft.)  | Bulk                      | Undisturbed | Blows/Ft.            | USCS Symbol           | Dry Unit Wt. (pcf) | Moisture (%) | Saturation (%) |  | Material Description   |
| 5 -  |                           |             |                      | SP<br>SM<br>SP-<br>SM |                    |              |                | 11.0.000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.0000<br>11.0.00 | <ul> <li>@ 0' SAND with GRAVEL, light brown, dry, loose; fine to coarse grained.</li> <li>@ 1' SILTY SAND, brown, damp, loose to medium dense; traces of mica.</li> <li>@ 2½' SILTY SAND/SAND, grayish brown, moist, medium dense.</li> <li>@ 7' SILTY SAND/SAND, grayish brown, wet, medium dense.</li> </ul> |
| 10 -   |                           |             |                      |                       |                    |              |                | 1413 CE<br>1423 CE<br>1423 CE<br>1433 CE<br>1433 CE<br>1433 CE<br>1433 CE<br>1433 CE   | @ 11' SILTY SAND/SAND, grayish brown, wet, dense.  |
| 20 -   |                           |             |                      |                       |                    |              |                |  | Total Depth = 15' No Groundwater/Caving Encountered Backfilled 4-19-2019   |
|  |                           |             | netratio<br>, Ring S |                       |                    |              |                |  | ₹ Groundwater<br>⊘ Seepage   |
|  |                           |             |                      |                       |                    |              |                |  | GeoSoils, Inc.   |

| Ge   | GeoSoils, Inc. BORING LOG  |             |           |             |                    |              |                |         |  |  |
|--|--|-------------|-----------|-------------|--------------------|--------------|----------------|---------|--|--|
| PRC  | OCEAN BREEZE RANCH PROJECT: Planning Area 3 of Ocean Breeze Ranch  W.O. 6960-A6-SC  BORING GW-11  SHEET 1 OF 1 |             |           |             |                    |              |                |         |  |  |
| Including Residences R7and R8, and Barn B9 |  |             |           |             |                    |              | and E          | Barn B9 | DATE EXCAVATED 4/19/19 LOGGED BY: MK APPROX. ELEV.: 675'               |  |
|  | SAMPLE METHOD: Solid Flight Auger  |             |           |             |                    |              |                |         |  |  |
|  |  | Samp        | ole       |             |                    |              |                |         |  |  |
| Depth (ft.)                                | Bulk   | Undisturbed | Blows/Ft. | USCS Symbol | Dry Unit Wt. (pcf) | Moisture (%) | Saturation (%) |         | Material Description   |  |
| 0  |  |             |           | SC          |                    |              |                |         | @ 0' CLAYEY SAND, reddish brown, dry, loose.                           |  |
| 5 —  |  |             |           | SM          |                    |              |                |         | @ 3' SILTY SAND, brown, damp, medium dense.                            |  |
| -  |  |             |           |             |                    |              |                |         | @ 5' SILTY SAND, brown, moist, dense.                                  |  |
| _  |  |             |           |             |                    |              |                |         | Refusal @ 7½'  |  |
| 10 <del>-</del>                            |  |             |           |             |                    |              |                |         | Total Depth = 7½' No Groundwater/Caving Encountered Backfilled 4-19-19 |  |
| -  |  |             |           |             |                    |              |                |         |  |  |
| 15 -                                       |  |             |           |             |                    |              |                |         |  |  |
| -  |  |             |           |             |                    |              |                |         |  |  |
| 20 -                                       |  |             |           |             |                    |              |                |         |  |  |
| <u>-</u>                                   |  |             |           |             |                    |              |                |         |  |  |
| 25 <del>-</del>                            |  |             |           |             |                    |              |                |         |  |  |
| -<br>-                                     |  |             |           |             |                    |              |                |         |  |  |
| 30 -                                       |  |             |           |             |                    |              |                |         |  |  |
| -  |  |             |           |             |                    |              |                |         |  |  |
|  |  |             | enetratio |             |                    |              |                |         | Groundwater  |  |
| <i>U</i>                                   | naisti   | urbed       | , Ring S  | ample       |                    |              |                |         | Ş Seepage GooSoils Inc   |  |
|  |  |             |           |             |                    |              |                |         | GeoSoils, Inc.   |  |

# APPENDIX C PERCOLATION TEST REPORTS



| DEH Control #  | <u> </u> |
|----------------|----------|
| Date:          |          |
| Activity Code: |          |

| ENVIRON**  |                            |                    |                    |                     | _  |
|--|----------------------------|--------------------|--------------------|---------------------|--|
| Assessor's Parcel Number:                                  | 124150350                  | ) ()               | Map #              | Lot # _             | 382  |
| Assessor's Parcel Number:<br>Site Address <u>5 820 ん</u> 。 | Lilac 1200                 | d                  | Town: Bons         | Zip Co              | ode: <u>92003</u>                                |
| Owner: OCEAN BRE   | CHIEFE.                    |                    | Phone:             |                     |  |
|  |                            |                    |                    |                     |  |
| Mailing Address: 5820 (                                    | N. LILAC 160               | iau, Kov           | 15a/[              |                     |  |
| Test Test Depth  | Stabilized T               | est Tes            | t Depth            | Stabilized          | Average  |
| Hole # (INCHES)  | 1                          | lole# (//          | CHEID              | Rate                | Perc Rate  |
| P1 47.75   | 38.02                      | P5 6               | 1.00               | 73.75               |  |
| PZ 5Z  |                            | P6 5               | 59.50              | 33.29               | 43.65  |
| P3 60.5  | 52.27                      |                    |                    |                     |  |
| P4 61.0  | 11.87                      | <u> </u>           |                    |                     |  |
| Vertical seepage pits: Provide soils                       | s log. uniformity/capacity | v test results. ar | nd calculations on | separate 8-1/2" x 1 | 1" sheets of paper                               |
|  |                            |                    |                    |                     |  |
| TYPE OF SOIL: (clay, silt, s                               | sand, decomposed           | granite, etc       | .)                 | / ( 12 )            |  |
| Surface: <u>5/2m Sand</u> 4 ft. below surface:             | NICIAT 616HT               | ISIGUNN            | denilos            | 56 (3M)             | LACTOR MAKE 5 ST 20 61                           |
| ft. below surface:   | SILTY DAND, O              | ARK BIZE           | inh, most          | 1, LOOSE =          | RICORD LETY                                      |
| ft. below surface:   |                            |                    |                    |                     |  |
| ft, below surface:   |                            |                    |                    |                     |  |
| Depth to Refusal: <i>NoN</i>                               | £ De                       | epth to Grou       | ndwater: No.       | NE ENCOL            | ~TENED   |
|  |                            |                    |                    |                     |  |
| RECOMMENDATIONS:   |                            |                    |                    |                     |  |
| Septic Tank: <u>/500</u>                                   |                            |                    |                    |                     |  |
| Leach Line Length: 655                                     | ft Seepage P               | it Type:           | Nu                 | mber of Pits: _     |  |
| Trench Depth:  | ft Length:                 |                    | ft Wi              | dth:                | ft   |
| Rock below Pipe: 12  |                            |                    |                    |                     |  |
| Othor:   |                            |                    |                    |                     |  |
| Proposed Structure: Sin                                    | 6LE Forish RC              | SIJJEHTIA/         | - 5-6 bo           | Com                 |  |
|  | 1                          |                    |                    | ,                   |  |
| WATER SUPPLY:  |                            |                    |                    |                     |  |
| Source of Potable Water: _                                 |                            |                    | Well Pern          | nit Number:         |  |
| I have reviewed this percolation                           | n data and design of t     | he subsurface      | e sewage disposa   | al system for this  | parcel and find the                              |
| data and design to be accurate                             |                            |                    |                    |                     |  |
| Registered CE, PE, Geologist, RE                           | -HS <sup>.</sup>           |                    |                    |                     |  |
| -7/11 P  |                            | - 1                | 0 410.7 0          |                     | 1 10   |
| Address: 5741 Polmen<br>Cantsbas, C                        | L WAT                      | Phone:             | 0-438-315          | Date: _             | 5-6-17   |
| LANGS BAD, C   | FOR DE                     | PARTMENT U         | SE ONLY            |                     |  |
|  | TORBE                      | ,                  |                    |                     |  |
| Approved: Yes No   | Date:                      |                    | Final Map F        | Required: Yes _     | No   |
| Specialist:  |                            |                    | -                  | _                   |  |
| Building Plan Review:                                      |                            |                    | Date:              |                     | <del>*************************************</del> |
| Grading Inspection:<br>Water Sample Analysis Res           |                            |                    | Date:              |                     |  |
| Water Sample Analysis Res                                  | sults:                     |                    | Date:              |                     |  |



| DEH Control #:   |  |
|------------------|--|
| Date:            |  |
| Activity Code: _ |  |

| CAVIROY  |  | 1011   |                                   |                        |  |                      |  |  |
|--|--|--|-----------------------------------|------------------------|--|----------------------|--|--|
| Assessor   | 's Parcel Number:  | 1241503  | 3560 <u> </u>                     | Map #                  | Lot #  | _383                 |  |  |
| Site Addr  | ess <u>5820</u> 1  | d. VIVAL ROO   | id:                               | Town: <u>Bon</u>       | Sall Zip C   | ode: <u>92003</u>    |  |  |
| Owner:   | Ocean Breeze   | Forms, LL  | -                                 | Phone:                 |  |                      |  |  |
| Mailing A  | ddress: <u>5820</u>  | W. Lilac   | Rood B                            | Bansall                |  |                      |  |  |
| Test<br>Hole #   | Test Depth   | Stabilized<br>Rate   | Test<br>Hole #                    | Test Depth             | Stabilized<br>Rate   | Average<br>Perc Rate |  |  |
| P\   | 61.50"   | 57.00  |                                   | 61.50"                 | 36,87  | 1 C/C Rate           |  |  |
| PZ   | 62.00"   | 85.5L  | bl                                | (2.00"                 |  | 71.610               |  |  |
| P3   | 66.00"   | 57.47  | 3 34                              |                        |  | 65,68                |  |  |
| PH   | 61.50"   | 93.20  |                                   |                        |  |                      |  |  |
| 2.5 f<br>3.5 f<br>The second of the second of th | t. below surface: t. below surface: t. below surface: t. below surface: Refusal: No  MENDATIONS: ank: Soo ne Length: Oepth: Ow Pipe: Sin | Clayer San  Clayer San  Rosusa I  gal Pump (  ft Seepag  ft Length  in Total D | Depth to Chamber: _ ge Pit Type : | Groundwater:gal ::ftft | None en Cour  Surge Tank:  Number of Pits: _  Width:  Cap Depth: | galft                |  |  |
| WATER  | SUPPLY: of Potable Water:  | *  |                                   |                        |  |                      |  |  |
| have rev   | iewed this percolation<br>design to be accurate  | n data and desigi  | n of the subs                     | surface sewage disp    | oosal system for this  | s parcel and find    |  |  |
|  | I CE, PE, Geologist, RI  |  |                                   |                        |  |                      |  |  |
| \ddress: _   | 5741 POlmer W.<br>CARL: BAD, CA  | 9,5te.D<br>1,92010<br>FO   | Phone:                            | 760-438-31             | Date:  | 5-6-19               |  |  |
| Approve  | d: Yes No<br>st:   | Date:  |                                   | _ Final Ma             | p Required: Yes  |                      |  |  |
| Building   | Plan Review:   |  |                                   | <br>Date:              |  |                      |  |  |
| Grading  | Inspection:  |  |                                   | Date:                  | Date:  |                      |  |  |
| Water Ša   | ample Analysis Re  | sults:   | Date:                             | Date:                  |  |                      |  |  |



| DEH Control #  |  |
|----------------|--|
| Date:          |  |
| Activity Code: |  |
|                |  |

| ENVIRON"   |  |  |                           |  |  |                                       |  |
|--|--|--|---------------------------|--|--|---------------------------------------|--|
| ssessor's P  | arcel Number:  | 124150350  | 00                        | Map #                                      | Lot #                                      | 384                                   |  |
| ite Address  | 5820 W.  | Mac Road   | i.                        | Town:Bd(                                   | ]SallZip C                                 | ode: <u>92003</u>                     |  |
| wner (   | Mean Breeze  | FAMORS IL  | -C                        | Phone:                                     |  |                                       |  |
|  | ess: 5820  | •  |                           |  |  |                                       |  |
| alling Addit   | ess  | W. MILL CO   | 1001                      | 15011                                      |  |                                       |  |
| Hole #   | est Depth  | Stabilized<br>Rate   | Test<br>Hole #            | Test Depth                                 | Stabilized<br>Rate                         | Average<br>Perc Rate                  |  |
|  | 59.00"   | 52.60  | PS                        | 59,00"                                     | 5.15                                       |                                       |  |
| P2   | 61.50"   | 86.67  | PL                        | 50.50"                                     | 35.11                                      | J 64.6                                |  |
| P3   | 62.00"   | 82.67  |                           |  |  |                                       |  |
| PY   | 59.75"   | 126.00   |                           |  |  |                                       |  |
| epth to Re<br>ECOMME<br>eptic Tank<br>ach Line<br>ench Dep | :NDATIONS:<br>:: いらい<br>Length: <u>150</u><br>oth: リ | gal Pump Cl<br>_ft Seepage<br>_ft Length:  | hamber: _<br>e Pit Type   | Groundwater:<br>gal<br>::ft                | Surge Tank:<br>Number of Pits: _<br>Width: | gal -                                 |  |
| hor:   |  |  |                           |  |  |                                       |  |
| oposed S   | tructure: <u>Sing</u>                                | ilc Family   | KESINE                    | entrial 5-6                                | barm                                       |                                       |  |
| ATER SU<br>ource of P                                      |  |  |                           | Well Pe                                    | ermit Number:                              |                                       |  |
| ave review<br>ta and desi                                  | ed this percolation<br>ign to be accurate a          | data and design on the sign of | of the subs<br>with state | surface sewage disp<br>and local regulatio | osal system for this<br>ns, and good engin | s parcel and find<br>eering practice. |  |
| -  | =  |  |                           |  |  |                                       |  |
| dress: 57  | 141 Polmen W<br>NLSBAU.CA.                           | 101 Ste.D<br>92010   | Phone:                    | 760-437-3<br>ENT USE ONLY                  | /55 Date: _                                | 5-6-19                                |  |
|  | 7  | FOR  | DEPARTM                   | ENT USE ONLY                               |  |                                       |  |
| oproved: \   | Yes No   | Date:  |                           |  | p Required: Yes                            | No                                    |  |
| ilding Pla   | n Review:  |  |                           | Date:                                      |  |                                       |  |
| adıng ins  | pection:   |  |                           | Date:                                      |  |                                       |  |
| ater Šami  | nle Analysis Resi                                    | ılts:  | Date:                     |  |  |                                       |  |



| DEH Control #: |  |
|----------------|--|
| Date:          |  |
| Activity Code: |  |

| Satatunger   | 101110                                     |                         |  |   |   |
|--|--|-------------------------|--|---|---|
| Assessor's Parcel Number: _                                    | 124 15039                                  | 500                     | Map #                                      | Lot #                                       | 385                                     |
| Site Address <u>5820 W</u>                                     | 1. Lijac Roo                               | 4                       | Town: Bon                                  | Sall Zip C                                  | ode: <u>92003</u>                       |
| Owner: Ollan Bre   | eze Farms                                  | UC_                     | Phone:                                     |   |   |
| Mailing Address:   | · ·  | _                       |  |   |   |
| Test Test Depth  | Stabilized<br>Rate                         | Test<br>Hole #          | Test Depth                                 | Stabilized<br>Rate                          | Average<br>Perc Rate                    |
| PI [.0.75"   | 43.43                                      | PS                      | 56,60"                                     | 66.4  |   |
| P2 [2 00"  | 64.8                                       |                         | 66.50"                                     | 80.34                                       | 162.29                                  |
| P3 59.50"  | 64   |                         |  |   | - V~. V~ 1                              |
| PH 60.60"  | 54.75                                      |                         |  |   |   |
| /ertical seepage pits: Provide so                              |  |                         |  |   | 11" sheets of paper                     |
| <b>ГҮРЕ OF SOIL:</b> (clay, silt<br>Surface: <u>( \ల్ఫల</u> ్ఫ | sand, decompose                            | sed granite             | e, etc.)<br>wn . DM . 100                  | ose (sc)                                    |   |
| 2.5 ft. below surface:   | _ Clayley Sa                               | nd Broi                 | DO DAMP M                                  | edium Dense                                 | (50)                                    |
| ft. below surface:   | CLONEY SA                                  | nd Bro                  | own, moist, 1                              | Medium Dense                                | <u> (50)</u>                            |
| ft. below surface:   |  |                         |  | · · · · · · · · · · · · · · · · · · ·       |   |
| ft. below surface:   | ~ ^  |                         |  | Δ   | %                                       |
| Depth to Refusal:\00_  | Ketusui                                    | _ Depth to              | Groundwater:                               | None KIROW                                  | VARA T                                  |
| RECOMMENDATIONS: Septic Tank: \500 Leach Line Length: \73      | gal Pump C                                 | hamber: _<br>e Pit Type | gal<br>:                                   | Surge Tank:<br>Number of Pits: <sub>-</sub> | gal                                     |
| rench Depth: 4   | ft Length:                                 |                         | ft   | Width:                                      | ft                                      |
| Rock below Pipe: 12  |  |                         |  |   |   |
| Othor:   |  |                         |  |   |   |
| Proposed Structure:S/  | noce Family                                | Resile                  | ntial 5-6                                  | bdem  |   |
|  | 7  |                         |  |   |   |
| WATER SUPPLY:  |  |                         |  |   |   |
| Source of Potable Water:                                       |  |                         | Well P                                     | ermit Number:                               |   |
| have reviewed this percolati<br>data and design to be accura   | ion data and design<br>te and in complianc | of the subs             | surface sewage disp<br>and local regulatio | oosal system for thi<br>ns, and good engin  | is parcel and find<br>neering practice. |
| Registered CE, PE, Geologist,                                  |  |                         |  |   |   |
| Address: 5741 Polmen<br>CANLSbab,C                             | Way Ste. D                                 | Phone:                  | 760-438-3                                  | Date:                                       | 5-6-19                                  |
|  | FOR  | DEPARTM                 | ENT USE ONLY                               |   |   |
| Approved: Yes No   |  |                         |  | p Required: Yes                             | No                                      |
| Specialist:  |  |                         | Data:                                      |   |   |
| Building Plan Review:<br>Brading Inspection:                   |  |                         | Date                                       |   |   |
| Grading Inspection:<br>Water Sample Analysis R                 | esults:                                    |                         | Date:                                      |   |   |
|  |  |                         |  |   |   |



| DEH Control #  | ÷ |
|----------------|---|
| Date:          |   |
| Activity Code: |   |

| ENVIRON                                       |   | 1011166                            |                                 |                           |                             |                      |
|---|---|------------------------------------|---------------------------------|---------------------------|-----------------------------|----------------------|
|   | s Parcel Number:  |                                    |                                 |                           |                             |                      |
| Site Addre                                    | ess <u>5820 W.</u>  | 1106 Road                          |                                 | Town: <u></u> B <u>ბი</u> | Sall Zip C                  | ode: <u>92003</u>    |
| Owner:  | Olean Bree  | ce Farms                           | LLC                             | Phone:                    |                             |                      |
| Mailing Ad                                    | ddress: <u>5820</u>   | W. Lilac                           | Roud                            | Bonsall                   | ···                         |                      |
| Test<br>Hole #                                | Test Depth  | Stabilized<br>Rate                 | Test<br>Hole #                  | Test Depth                | Stabilized<br>Rate          | Average<br>Perc Rate |
| R   | 66.50   | 42.55                              | PS PS                           | 58.66"                    | 36.67                       |                      |
| Pz  | 59.00"  | 79.33                              | Pt                              | 65.00"                    | 116.00                      | 172.90               |
| P3  | 63.00''   | 156                                |                                 |                           |                             |                      |
| PH  | 61.50"  | 12.89                              |                                 |                           |                             |                      |
| f<br>epth to<br>ECOMI<br>eptic Ta<br>each Lii | t. below surface: t. below surface: Refusal:NoR  MENDATIONS: ank:\Soc ne Length:4 | efusa (<br>gal Pump (<br>ft Seepad | Depth to _hamber: _ ge Pit Type | Groundwater:<br>gal       | Surge Tank: Number of Pits: | gal                  |
| Rock bel                                      | ow Pipe: 12   | in Total D                         | epth:                           | ft                        | Cap Depth:                  | ft                   |
| 74l   |   |                                    |                                 |                           |                             |                      |
| roposed                                       | d Structure: Sing   | le Family                          | Residen                         | rin 1 5-6 b               | bdem                        |                      |
|   | SUPPLY: of Potable Water:   |                                    | ,                               | Well Po                   | ermit Number:               |                      |
|   | iewed this percolation<br>design to be accurate a                                 |                                    |                                 |                           |                             |                      |
| ₹egistered                                    | CE, PE, Geologist, REI  | HS:                                |                                 |                           |                             |                      |
| رddress:                                      | 5741 Polmen<br>onlspop, Ca.   | Way, Ste.                          | Phone:                          | 760-438-3                 | /TTDate: _                  | 5-6-19               |
|   | 2   | FOI                                | R DEPARTM                       | IENT USE ONLY             |                             |                      |
|   | d: Yes No<br>et:  |                                    |                                 |                           | p Required: Yes             | No                   |
| 3uilding                                      | Plan Review:  |                                    |                                 | <br>Date:                 |                             |                      |
| 3rading                                       | Inspection:   |                                    |                                 | Date:                     |                             |                      |
| Nater Sa                                      | ample Analysis Resi   | ults:                              |                                 | Date:                     |                             |                      |



| DEH Control #  | *************************************** |
|----------------|---|
| Date:          |   |
| Activity Code: |   |

| ENVIRON   | 10.11.55   |  |                 |  |                   |
|---|--|--|-----------------|--|-------------------|
| ssessor's Parcel Num  | per: 124 150 3                                     | 000                                      | Map #           | Lot #  | 387               |
| ite Address <u>5820</u>   | W. Klac Roo  | 4  | Town:           | on SallZip C   | ode: <u>920p3</u> |
| wner: ()Clun  | Breeze Farms                                       | LLC                                      | Phone:          |  |                   |
| ailing Address:   | 820 W. LAVAL                                       | Rosa 1                                   | 3 onsall        |  |                   |
| est Test Depth  | Stabilized   | Test                                     | Test Depth      | Stabilized   | Average           |
| ole#  | Rate   | Hole #                                   |                 | Rate   | Perc Rate         |
| PI 57.00"   | 11.79  | PS                                       | 63.60"          | 12,27  |                   |
| P2 52,60"   |  | P6                                       | 60.00"          | 6.60   | 29.31             |
| 23 55,06"   | 125.47   |  |                 |  |                   |
| PH 50.00"   | 4.67   |  |                 |  |                   |
| COMMENDATION ptic Tank:\Soto cach Line Length: _sench Depth:ck below Pipe:\ | gal Pump (  585 ft Seepag  ft Length  in Total D   | Chamber: _<br>ge Pit Type:<br>:<br>epth: | gal<br>ft<br>ft | Surge Tank:<br>Number of Pits: _<br>Width:<br>Cap Depth: | gal<br>ft<br>ft   |
| ner:<br>oposed Structure:   | Single family                                      | Residen                                  | tist 5-6        | bacm   |                   |
| ATER SUPPLY:  |  |  |                 |  |                   |
| ource of Potable Wa   | iter:  |  | Well F          | Permit Number:   |                   |
|   | colation data and design<br>curate and in complian |  |                 |  |                   |
| gistered CE, PE, Geolo  | gist, REHS:  |  |                 |  |                   |
| dress: <u>5741 Pal</u><br>Carls   | men Way, Ste. 1<br>3AD, CA: 9201                   | 2 Phone:                                 | 760-438-        | -3/ <u> </u>   Date: _                                   | 5-6-19            |
|   | FO   | R DEPARTME                               | ENT USE ONLY    |  |                   |
| oproved: Yes Nocialist:   | o Date:  |  |                 | ap Required: Yes   | No                |
| ilding Plan Review  |  |  | Date:           |  |                   |
| ading Inspection:   |  |  | Date: _         |  |                   |
| ater Sample Analys  | is Results:  |  | Date:           |  |                   |



| DEH Control #: |  |
|----------------|--|
| Date:          |  |
| Activity Code: |  |

| AVIRON   |  |                          |  |  |                                       |
|--|--|--------------------------|--|--|---------------------------------------|
| Assessor's Parcel Number:  | 124150350                                    | <u>()</u>                | Map #  | Lot #  | 388                                   |
| Site Address5820_  | H. HIOL ROU                                  | 4                        | Town: Bons   | Zip C  | ode: <u>92003</u>                     |
| Owner: Olean B   | neeze Farms                                  | LLC                      | Phone:   |  |                                       |
| Mailing Address:5820   | W. Lilac Ro                                  | od, Boc                  | Sall   |  |                                       |
| Test Test Depth Hole #   | Stabilized<br>Rate                           | Test<br>Hole #           | Test Depth   | Stabilized<br>Rate                                 | Average<br>Perc Rate                  |
| P1 61.50"  | 66.00  | PS                       | 62.50"   | 45,33  |                                       |
| P2 54.50"  | 33.60  | Pb                       | 60.50"   | 68.00  | 1 68.72                               |
| P3 61.00"  | 132.00                                       |                          |  |  | 1 00000                               |
| P4 61.50"  | 68.00  |                          |  |  |                                       |
| <i>Vertical</i> seepage pits: Provide se<br>TYPE OF SOIL: (clay, sil<br>Surface: <u>( ) いろとり</u> S   |  |                          |  |  | 11" sheets of paper                   |
| Surface: <u>\ \\a\geg\ S</u><br><u>-3-S</u> ft. below surface:   | MILE CONTRACTOR                              | 10010 1                  | Dana Dana  | Nenso /  | 44.                                   |
| ft. below surface:   | clames and                                   | BIOOL                    | · DAINY, IVE   | a, Duise Le  | <u> </u>                              |
| ft. below surface:   |  |                          |  |  |                                       |
| ft. below surface:   |  |                          | Sample Control of the | and all and an |                                       |
| Depth to Refusal: \( \int \mathcal{O} \cdot\)  |  | Denth to                 | Groundwater:   | Nimo one   | MO+0 NO -1                            |
| Septic Tank: \\\ \\ \\ \\ \ \ \ \ \ \ \ \ \ \ \ \  | ft Seepag ft Length:                         | e Pit Type               | e:ft \   | Number of Pits: _<br>Width:                        | ft                                    |
| Other:   |  |                          |  |  |                                       |
| Other:<br>Proposed Structure: _ <i>5</i> /   | ngle Family                                  | RESID                    | ENTIAL 5-6   | 5 bdrm   |                                       |
| WATER SUPPLY:<br>Source of Potable Water:  | 4  |                          | Well Pe  |  |                                       |
| have reviewed this percolated that and design to be accurated as and design to be accurated to the second that are the second to the second that are the second that are the second to the second that are the | tion data and design<br>ate and in complianc | of the subsee with state | surface sewage disp<br>e and local regulation  | osal system for this<br>ns, and good engin         | s parcel and find<br>eering practice. |
| Registered CE, PE, Geologist,  |  |                          |  |  |                                       |
| Address: 5741 Palme<br>CANISOAS, C   | LWOJ, STE. 1<br>CA. 92010                    | Phone:                   | 760-438-36   | Date: _  | 5-6-17                                |
|  | FOR  | UEPARTM                  | ENT USE ONLY   |  |                                       |
| Approved: Yes No _<br>Specialist:  | Date:  |                          |  | p Required: Yes                                    | No                                    |
| Building Plan Review:  |  |                          | Date:  |  |                                       |
| Grading Inspection:  |  |                          | Date:  |  |                                       |
| Mater Sample Analysis E  | Date:  | Data:                    |  |  |                                       |



| DEH Control #  | * |
|----------------|---|
| Date:          |   |
| Activity Code: |   |

| Assessor's Parcel Number:  | 12/1202   | 500  | Map #   | Lot #  | 384   |
|--|---|--|---|--|---|
| Assessor's Parcel Number: 124 150 3500 Site Address 5820 W. Lilac Road   |   |  | <br>Town: Box   | ISW\ Zip Co  | ode: <b>9</b> 2003  |
|  |   |  |   |  |   |
| Owner: <u>Olean Br</u>   |   | G .  |   |  |   |
| Mailing Address: <u>582</u> 0  | ) W. LALOR [  | Road, P  | BONSAN  |  |   |
| Test Test Depth<br>Hole #  | Stabilized<br>Rate  | Test<br>Hole #   | Test Depth  | Stabilized<br>Rate   | Average<br>Perc Rate  |
| P1 61.50"  | 460   | PS   | 61.00"  | 87.20  |   |
| P2 61.00"  | 228   | PG.  | <i>6</i> 2.50"  | 153.33   | ] 1111 00   |
| P3 61.00"  | 436   |  |   |  | 264.09  |
| P4 45.60"  | 220   |  |   |  |   |
| ft. below surface: ft. below surface: ft. below surface:   | -   |  |   |  |   |
| Depth to Refusal: No  RECOMMENDATIONS: Septic Tank: 1500 Leach Line Length: 17  Trench Depth: 4  Rock below Pipe: 12  Other: RATE Excee                | gal Pump ( ft Seepag ft Length in Total D   | Chamber: _ ge Pit Type : Depth:  | gal<br>:ft<br>ft  | Surge Tank:<br>Number of Pits: _<br>Width:<br>Cap Depth:<br>BETEST   | gal<br>ft<br>ft   |
| RECOMMENDATIONS: Septic Tank: \\500 Leach Line Length: Trench Depth:4 Rock below Pipe: \12 Other: \_RATE \( \text{Excee} \)                            | gal Pump ( ft Seepag ft Length in Total D   | Chamber: _ ge Pit Type : Depth:  | gal<br>:ft<br>ft  | Surge Tank:<br>Number of Pits: _<br>Width:<br>Cap Depth:<br>BETEST   | gal<br>ft<br>ft   |
| RECOMMENDATIONS: Septic Tank:  | gal Pump ( ft Seepag ft Length in Total D DS /20 min ngle Fomily  | Chamber: _<br>ge Pit Type<br>:<br>Depth:<br>Resupe                           | gal<br>:ft<br>ft<br>ft<br>  | Surge Tank:<br>Number of Pits: _<br>Width:<br>Cap Depth:<br>BETEST   | gal<br>ft<br>ft   |
| RECOMMENDATIONS: Septic Tank: \ Septic Tank: \ Leach Line Length: Trench Depth: Rock below Pipe: \ Other: \ RATE \ Proposed Structure: \ WATER SUPPLY: | gal Pump ( ft Seepag ft Length in Total D DS /20 min ngle Fomily  | Chamber: _ ge Pit Type : Depth: Results                                      | gal  ft  ft  wommen>  intial 5-6  Well Persurface sewage disp   | Surge Tank:<br>Number of Pits: _<br>Width:<br>Cap Depth:<br>BETEST<br>bdown<br>ermit Number:   | gal gal ft ft sparcel and find t                              |
| RECOMMENDATIONS: Septic Tank:  | gal Pump (ft Seepagft Lengthin Total D DS /20 min inglé Fomily  tion data and designate and in compliant                                    | Chamber: _ ge Pit Type : Depth: Resulting for the subsceewith state          | gal  ft  ft  ft  wommen>  ntin 5-6  Well Parage dispersion of the service of the | Surge Tank:<br>Number of Pits: _<br>Width:<br>Cap Depth:<br>BETEST<br>blum<br>ermit Number:<br>cosal system for this                           | galftftftftftftftftftft eering practice.                      |
| RECOMMENDATIONS: Septic Tank:  | gal Pump (ft Seepagft Lengthin Total D DS /20 min inglé Fomily  tion data and designate and in compliant                                    | Chamber: _ ge Pit Type : Depth: Resulting for the subsceewith state          | gal  ft  ft  ft  wommen>  ntin 5-6  Well Parage dispersion of the service of the | Surge Tank:<br>Number of Pits: _<br>Width:<br>Cap Depth:<br>BETEST<br>blum<br>ermit Number:<br>cosal system for this                           | galftftftftftftftftftft eering practice.                      |
| RECOMMENDATIONS: Septic Tank:  | gal Pump ( gal Pump ( ft Seepag ft Length in Total D  John John John John John John John John   | Chamber: _ ge Pit Type : Depth: Results in of the subsice with state         | gal  ft  ft  ft  wommen>  ntin 5-6  Well Parage dispersion of the service of the | Surge Tank:<br>Number of Pits: _<br>Width:<br>Cap Depth:<br>BETEST<br>blum<br>ermit Number:<br>cosal system for this                           | galftftftftftftftftftft eering practice.                      |
| RECOMMENDATIONS: Septic Tank:  | gal Pump ( ft Seepag ft Length in Total D /20 min file Family  fion data and designate and in compliant REHS: Ste, D Folionete: Date: Date: | Chamber: _ ge Pit Type : Depth: Plant Resubs ce with state Phone:  R DEPARTM | gal  ft  ft  ft  wommen>  ntna   5-6  Well Particle sewage displant local regulation  760-438-3  ENT USE ONLY  Final Ma   | Surge Tank:<br>Number of Pits: _<br>Width:<br>Cap Depth:<br>BETEST<br>blum<br>ermit Number:<br>cosal system for this                           | gal ft ft ft s parcel and find the eering practice.           |
| RECOMMENDATIONS: Septic Tank:  | gal Pump (ft Seepagft Lengthin Total D DI IZO minimal Fomily  tion data and designate and in compliant REHS:FOI                             | Chamber: _ ge Pit Type : Depth: Plant Resubs ce with state Phone:  R DEPARTM | gal  ft  ft  ft  whith 5-6  Well Production  furface sewage displant local regulation  The surface only  Final Ma   | Surge Tank: Number of Pits: _ Width: Cap Depth: Berrest  ermit Number:  posal system for this ons, and good engine  Date: p Required: Yes      | gal ft ft ft s parcel and find the eering practice. S-6-19 No |
| RECOMMENDATIONS: Septic Tank:  | gal Pump (ft Seepagft Lengthin Total D  DS /20 min right Family  stion data and design ate and in compliant REHS:FOIFOIFOI                  | Chamber: _ ge Pit Type : Depth: Plan Resubs ce with state Phone: R DEPARTM   | gal  ft  ft  ft  whith some one of the surface sewage displayed and local regulation  Final Ma  Date: Date: Date:   | Surge Tank:<br>Number of Pits: _<br>Width:<br>Cap Depth:<br>BETEST<br>button<br>ermit Number:<br>cosal system for this<br>ons, and good engine | galftftftftftftNo   |



| DEH Control #: |
|----------------|
| Date:          |
| Activity Code: |

| Assessor's Parcel Number:   | 12415035                   | 50             | Map #                 | Lot #                                   | 390                  |
|---|----------------------------|----------------|-----------------------|---|----------------------|
| Site Address <u>5820 W</u>  | . WICE ROC                 | d              | Town: <u>Bon</u>      | Sall Zip C                              | ode: <u>92003</u>    |
| Owner: Octan Breez  | - Paragraph                |                |                       |   |                      |
| Mailing Address: 5820   | W. LIVE R                  | Dard, Br       | onsall                |   |                      |
| Test Test Depth Hole #  | Stabilized<br>Rate         | Test<br>Hole # | Test Depth            | Stabilized<br>Rate                      | Average<br>Perc Rate |
| P1 44.25"<br>P2 55.75"<br>P3 60.75"<br>P4 59.00"                                | 28.31<br>40.89<br>72<br>45 | PS<br>Pb       | 64.75"<br>62.50"      | 22.75<br>52                             | 43.49                |
| Vertical seepage pits: Provide soil:  TYPE OF SOIL: (clay, silt,                | sand decompo               | nsed aranit    | re etc)               |   |                      |
| Surface: Clower Sac  ft. below surface:  ft. below surface:  ft. below surface: | A-1                        |                |                       | , | ed. Dense/Stiff (S   |
| ft. below surface: _<br>Depth to Refusal: <u>No_R</u>                           |                            | Depth to       | Groundwater:          | None encour                             | rtered               |
| RECOMMENDATIONS:<br>Septic Tank: <u>\ら</u> の<br>Leach Line Length: <u>しらら</u>   |                            |                |                       |   |                      |
| Trench Depth:   | ft Length                  | ·              | ft                    | Width:                                  | ft                   |
| Rock below Pipe:\2<br>Other:  |                            |                |                       |   |                      |
| Proposed Structure: 514   | GLE FAMIL                  | L4 12E         | SIDENTIAL             | 5-6 bain                                | 7                    |
| WATER SUPPLY:<br>Source of Potable Water: _                                     |                            |                | Well Po               | ermit Number:                           |                      |
| I have reviewed this percolatio<br>data and design to be accurate               | and in complian            | ce with state  | e and local regulatio | ns, and good engin                      |                      |
| Registered CE, PE, Geologist, RI  |                            |                |                       |   | -, 19                |
| Address: 5741 Palmer<br>CARLS book, CA  | · WAY STE.                 | Phone:         | 760 438-3             | Date: _                                 | 5-6-77               |
|   | FO                         | R DEPARTIV     | IENT USE ONLY         |   |                      |
| Approved: Yes No<br>Specialist:   |                            |                |                       | p Required: Yes                         |                      |
| Building Plan Review:   |                            |                | Date:                 |   |                      |
| Grading Inspection:<br>Water Sample Analysis Re                                 | sults:                     |                | Date:                 |   |                      |



| DEH Control #  | ŧ: |
|----------------|----|
| Date:          |    |
| Activity Code: |    |

| CAVIRON   |   |                |                  |                       |                      |  |
|---|---|----------------|------------------|-----------------------|----------------------|--|
| Assessor's Parcel Number:   |   |                |                  |                       |                      |  |
| Site Address <u>5820     </u>   | J. VILOR ROO                                    | 4              | Town: <u>Bo(</u> | 7Sall Zip C           | ode: <u>92003</u>    |  |
| Owner: 0 can B  | neeze Farm                                      | s, Luc         | Phone:           |                       |                      |  |
| Mailing Address:5820  | W. MOC B  | Lood I         | BONSAIL          |                       |                      |  |
| Test Test Depth<br>Hole #   | Stabilized<br>Rate                              | Test<br>Hole # | Test Depth       | Stabilized<br>Rate    | Average<br>Perc Rate |  |
| P1 60.30"   | 23.59   | PS PS          | 5H.75"           | 54                    |                      |  |
| P2 62.00"   | 34.03   | Pb             | 62.25"           | 71.56                 | 35.76                |  |
| P3 67.75"   | 17.31   |                |                  |                       | JV. 10               |  |
| P4 66.50"   | 22.65   |                |                  |                       | -                    |  |
| <u>Vertical seepage pits: Provide so</u><br>TYPE OF SOIL: (clay, silt |   |                |                  | on separate 6-1/2 X I | T Sheets of paper    |  |
| Surface: Clayers  | Soul Pallich                                    | Seu grann      | Dry Loose        | (52)                  |                      |  |
| 3.5 ft. below surface:  | Clayey San                                      | d (2001)       | ISh Brown D      | Damp, Med 1           | Dense (sc)           |  |
| ft. below surface:  |   |                |                  |                       |                      |  |
| ft. below surface:  |   |                |                  |                       |                      |  |
| ft. below surface:  |   |                |                  |                       |                      |  |
| Depth to Refusal: <u>No_P</u>   | 'efusal   | _ Depth to     | Groundwater:     | None encou            | ntered               |  |
| RECOMMENDATIONS:<br>Septic Tank:\ちの0<br>Leach Line Length:            | <u>&gt;                                    </u> | ge Pit Type    | 2.               | Number of Pits: _     |                      |  |
| Trench Depth: 4   | ft Length:                                      | ·              | ft               | Width:                | ft                   |  |
| Rock below Pipe:\2  | in Total D                                      | epth:          | ft               | Cap Depth:            | ft                   |  |
| Other:  | ,   |                |                  | . 4                   |                      |  |
| Proposed Structure: 51n   | GLE FAMILI                                      | RESID          | Entral 5         | -6 bdrm               |                      |  |
| WATER SUPPLY:<br>Source of Potable Water:                             |   |                | Well Pe          | ermit Number:         |                      |  |
| l have reviewed this percolati<br>data and design to be accurat       |   |                |                  |                       |                      |  |
| Registered CE, PE, Geologist, F                                       |   |                |                  |                       |                      |  |
| Address: 5741 Palme<br>Canlsbad, Ca                                   | - Wa, St6.1                                     | Phone:         | 760-438-         | -3/15 Date: _         | 5-6-19               |  |
|   | FOR   | R DEPARTM      | ENT USE ONLY     |                       |                      |  |
| Approved: Yes No<br>Specialist:                                       | Date:   |                | Final Ma         | p Required: Yes       | No                   |  |
| Building Plan Review:   |   |                | <br>Date:        |                       |                      |  |
| Grading Inspection:   |   |                | Date:            |                       |                      |  |
| Grading Inspection:   | eculte.   |                | Date:            |                       |                      |  |



| DEH Control #:   |  |
|------------------|--|
| Date:            |  |
| Activity Code: _ |  |

| - VARIED.                           |   | 10.11.               | -5             |                  |                                       |                      |
|-------------------------------------|---|----------------------|----------------|------------------|---------------------------------------|----------------------|
| Assessor                            | 's Parcel Number:   | 12415035             | 00             | Map #            | Lot #                                 | 392                  |
| Site Addr                           | ess <u>5870 W.</u>  | VILAC ROA            | 4              | Town: <u>Bon</u> | Sall Zip C                            | ode: <u>92003</u>    |
| Owner:                              | Olean Breeze  | Farms, L             | 46             | Phone:           |                                       |                      |
| ∕lailing A                          | ddress: <u>5820</u>   | W. Liloc             | Road,          | Bonsall          |                                       |                      |
| Test<br>Hole #                      | Test Depth  | Stabilized<br>Rate   | Test<br>Hole # | Test Depth       | Stabilized<br>Rate                    | Average<br>Perc Rate |
| Pl                                  | 48.00"  | 216                  | PS             | 51.50"           | 4.76                                  |                      |
| Ŷ2                                  | (60.50"   |                      | PV             | 62.75"           | 15.53                                 | Tenne                |
| P3                                  | 61.00"  | 4.33                 |                |                  |                                       | 50.45                |
| PY                                  | 60.50"  | 4.59                 |                | :                |                                       |                      |
| f<br>Depth to<br>RECOM<br>Septic Ta | ft. below surface:<br>ft. below surface:<br>Refusal: <i>No Qo</i><br><b>MENDATIONS:</b><br>ank:\500 | fusa l<br>gal Pump C | Depth to       | Groundwater:     | Surge Tank:                           | gal                  |
| each Li                             | ne Length: <u>675</u>   | ft Seepage           | e Pit Type     | : <b>N</b>       | lumber of Pits: _                     |                      |
| French E                            | Depth:  | ft Length:           |                | ft V             | Vidth:                                | tt                   |
| Rock bel                            | low Pipe: _\2   | _ in Total De        | pth:           | ft C             | Cap Depth:                            | ft                   |
| Other:                              | d Structure: SING   | 11 601-11            | 176 (1)        | 361-51-1         | -1000-0                               | ra f                 |
| ropose                              | a Structure. <u>3799</u> 6  | x rnmi-1             | 16 6 316       | <u> </u>         | -675 + D1230                          | <u> </u>             |
|                                     | SUPPLY: of Potable Water:   |                      |                | Well Pe          | rmit Number:                          |                      |
|                                     | iewed this percolation<br>design to be accurate a   |                      |                |                  |                                       |                      |
| Registered                          | d CE, PE, Geologist, RE   | HS:                  |                |                  |                                       |                      |
| Address:                            | 5741 Palmen M<br>CARLIBAD, CA   | lay, Ste. D          | Phone:         | 760-438-3        | /55 Date: _                           | 5-6-19               |
|                                     | - J   | FOR                  | DEPARTM        | ENT USE ONLY     |                                       |                      |
|                                     | d: Yes No<br>st:  |                      |                |                  | Required: Yes                         | No                   |
| Building                            | Plan Review:  |                      |                | <br>Date: _      | · · · · · · · · · · · · · · · · · · · |                      |
| Grading                             | Inspection:   |                      |                | Date:            |                                       |                      |
| Nater S                             | amnle Analysis Res  | ulte:                |                | Date:            |                                       |                      |



| DEH Control #  | <sup>£</sup> : |
|----------------|----------------|
| Date:          |                |
| Activity Code: |                |

| ENVIRON**   |                                  |                |                  |                      |                      |
|---|----------------------------------|----------------|------------------|----------------------|----------------------|
| ssessor's Parcel Number:  | 124 1503                         | 500            | Map #            | Lot #                | 393                  |
| ite Address <u>5820 W.</u>  | Lilac Ro                         | lo Lo          | Town: <u>BDC</u> | SWI Zip C            | ode: <u>92003</u>    |
| owner: Ocean Breez  | e Farms,                         | LLC            | Phone:           |                      |                      |
| Mailing Address:5820  | W. Hlac                          | Road,          | Bonsall          |                      |                      |
| Test Depth  | Stabilized<br>Rate               | Test<br>Hole # | Test Depth       | Stabilized<br>Rate   | Average<br>Perc Rate |
| PI 49.00"<br>PZ (0.00"<br>P3 62.00"<br>P4 60.00"  | 18.42<br>74.00<br>66.40<br>74.10 | PS<br>Pb       | 52.00<br>LL.00   | 26.09<br>31.67       | 48.45                |
| urface: Clayed So  The below surface:  ft. below surface:  ft. below surface:  ft. below surface:  poth to Refusal: | Stity Sand                       | Brow           | in hiet loo      | Se - Med, Den        |                      |
| ECOMMENDATIONS: eptic Tank: \( \subseteq 500 \) each Line Length: \( \subseteq 75 \)                                | ft Seepage                       | e Pit Type     | e:               | Number of Pits: _    |                      |
| rench Depth: 4<br>ock below Pipe: \frac{1}{2}<br>ther:  | ft Length:                       |                | ft \             | Width:<br>Cap Depth: | ft<br>ft             |
| roposed Structure: <u>Sin</u> る   | LE FAMILY                        | RESID          | ENTIOL 5         | -6 bd/m              |                      |
| VATER SUPPLY:<br>ource of Potable Water:  |                                  |                | Well Pe          | ermit Number:        |                      |
| have reviewed this percolation<br>ata and design to be accurate a   |                                  |                |                  |                      |                      |
| egistered CE, PE, Geologist, RE   |                                  |                |                  |                      |                      |
| CARLS 13AD, CA  | Way, StG.                        | Phone:         | 760-438-31       | Date: _              | 5-6-19               |
|   |                                  |                |                  |                      |                      |
| opproved: Yes No<br>Opecialist:   |                                  |                |                  | o Required: Yes      | No                   |
| Building Plan Review:   |                                  |                | Date:            |                      |                      |
| Grading Inspection:   |                                  |                | Date:            |                      |                      |
| Vater Sample Analysis Dos   | ulter                            |                | Data:            |                      |                      |



| DEH Control #  | • |
|----------------|---|
| Date:          |   |
| Activity Code: |   |

| (Aviro)   |  |                     | •                          |   |                      |
|---|--|---------------------|----------------------------|---|----------------------|
| Assessor's Parcel Number: _                                     | 12415035   | 500                 | Map #                      | Lot #   | 394                  |
| Site Address <u>5820 v</u>                                      | 1. MAC ROA                                       | 4                   | Town: <u>Boc</u>           | SallZip C                                       | ode: <u>42003</u>    |
| Owner: Ocean Bro  | oze Farms.                                       | uc                  | Phone:                     |   |                      |
| Mailing Address: 582  | W. Lilac   | Road, F             | Bonsall                    |   |                      |
| Test Test Depth<br>Hole #                                       | Stabilized<br>Rate                               | Test<br>Hole #      | Test Depth                 | Stabilized<br>Rate                              | Average<br>Perc Rate |
| PI 56.50"   | 146  | PS                  | 67.50"                     | 159   |                      |
|   | 144  | PG                  | 62.75"                     | 142   | ] 149.17             |
| P2 57.00"<br>P3 (60.50"   | 148  |                     |                            |   | 1 to 1 to 1          |
| P4 63.75"   | 156  |                     |                            |   |                      |
| ertical seepage pits: Provide soi                               | ls log, uniformity/cap                           | acity test res      | ults, and calculations     | on separate 8-1/2" x 1                          | 11" sheets of pape   |
| YPE OF SOIL: (clay, silt, Surface:                              | sand, decompos                                   | sed granit          | e, etc.)                   | <b>\</b>  |                      |
| ft. below surface:  | LING VIONI                                       | 1 Day               | I ROMAN O                  | and inco-                                       | Od Danca le          |
| ft. below surface:  | Claye, Jan                                       | s · vai             | K BIOWII D                 | WILL MODE IN                                    | ka. Dense n          |
| ft. below surface:  |  |                     |                            |   |                      |
| ft. below surface:  |  |                     |                            |   |                      |
| Depth to Refusal: No  |  | Depth to            | Groundwater:               | None encou                                      | intered              |
| Septic Tank:  | ft Seepage<br>ft Length:<br>in Total Description | e Pit Type<br>epth: | e:ft<br>ft<br> Resommen2 R | Number of Pits: _ Width: Cap Depth: Duttonal TE | ft                   |
| NATER SUPPLY: Source of Potable Water:                          |  |                     | Well P                     |   |                      |
| I have reviewed this percolation data and design to be accurate | on data and design                               | of the subs         | surface sewage disp        | osal system for thi                             | s parcel and find    |
| Registered CE, PE, Geologist, F                                 | REHS:  |                     |                            |   |                      |
| Address: 5741 Polman<br>CANLSBAD, CA                            | - UA, St6. D<br>. 92010                          | Phone:              | 760-438-3                  | 3/55 Date: _                                    | 5-6-19               |
|   | FOR  | DEPARIM             | ENT USE ONLY               |   |                      |
| Approved: Yes No<br>Specialist:                                 |  |                     |                            | p Required: Yes                                 | No                   |
| Building Plan Review:   |  |                     | <br>Date:                  |   | <u> </u>             |
| Grading Inspection:   |  |                     | Date:                      |   |                      |
| Mater Sample Analysis P   | orilte.  |                     | Date:                      |   |                      |



| DEH Control #: |
|----------------|
| Date:          |
| Activity Code: |

| AVVIRON   |   |   |                                    |                  |  |                       |
|---|---|---|------------------------------------|------------------|--|-----------------------|
| Assessor  | 's Parcel Number:                               | 12415035                                    | 560                                | Map #            | Lot #  | <u> 395</u>           |
| Sitë Addr   | ess <u>5820 W</u>                               | , VIIAL R                                   | oad                                | Town: Bor        | Sall Zip C   | ode: <u>92003</u>     |
|   | Ocean Bleez                                     |   |                                    |                  |  |                       |
| Mailing A   | ddress: <u>5820</u>                             | W. Lilac                                    | Road,                              | Bonsoul          |  |                       |
| Test<br>Hole #  | Test Depth                                      | Stabilized<br>Rate                          | Test<br>Hole #                     | Test Depth       | Stabilized<br>Rate                                       | Average<br>Perc Rate  |
| PI  | 62.00"  | 0   | PS                                 | 70.5"            | 0  |                       |
| PZ  | 60.50"  | 346   | P6                                 | 64.50"           | 82   | 290                   |
| P3  | 62.25"  | 334   |                                    |                  |  |                       |
| PH  | 61.25"  | 348   |                                    |                  |  |                       |
| Depth to  RECOMI Septic Ta  Leach Li  Trench E  Rock bel  Other: // | ft. below surface:                              | gal Pump Cft Seepagft Length: _ in Total De | Chamber: _<br>ne Pit Type<br>epth: | gal s gal s ft v | Surge Tank:<br>Number of Pits: _<br>Width:<br>Cap Depth: | gal<br>ft<br>ft<br>ft |
| Propose   | d Structure: <u>Sing</u>                        | LE FAMILY                                   | RESIDE                             | Ential 5-        | 6 BURM   |                       |
|   | SUPPLY: of Potable Water:                       |   |                                    | Well Pe          | ermit Number:  |                       |
|   | iewed this percolation<br>design to be accurate |   |                                    |                  |  |                       |
| Registered  | CE, PE, Geologist, RE                           | HS:   |                                    |                  |  |                       |
| Address: _  | 5741 Polment<br>CARLSIBAD, CA                   | VAI STE. D<br>- 92010                       | Phone:                             | 760-438-3        | Date: _  | 5-6-19                |
|   |   | FOF   | RDEPARTM                           | ENT USE ONLY     |  |                       |
| Specialis   | d: Yes No<br>st:                                |   |                                    |                  | o Required: Yes  | No                    |
| Building  | Plan Review:                                    |   |                                    | Date:            |  |                       |
| Grading   | Inspection:                                     |   |                                    | Date:            |  |                       |
| Nater Sa  | ample Analysis Res                              | ults:                                       |                                    | Date:            |  |                       |



| DEH Control #  |  |
|----------------|--|
| Date:          |  |
| Activity Code: |  |

|   | · · · · · · · · · ·  | 700  | Map #  | Lot #  | 396   |
|---|--|--|--|--|---|
| Site Address5820_\  | n vilae R  | bool   | Town:  | Sall Zip C   | ode: <u>92003</u>   |
| Owner: Olean B  |  |  |  |  |   |
| Mailing Address:  |  |  |  |  | , programmer (1 march 1 march |
| Test Test Depth   | Stabilized   | Test   | Test Depth   | Stabilized   | Average   |
| Test Test Depth<br>Hole #   | Rate   | Hole #   | rest Deptii  | Rate   | Average<br>Perc Rate  |
| P1 64.00"   | 4.31   | PS   | 59.50"   | 62.67  |   |
| PZ S5-00"   | 4.82   | PV   | 59.50"<br>62.00"   | YLY  | 7 20.69   |
| P3 55.50"   | 4.36   |  |  |  | 7 20.01   |
| P4 66.00"   | 4.00   |  |  |  |   |
| Vertical seepage pits: Provide soils  | s log, uniformity/ca   | pacity test res  | sults, and calculations  | on separate 8-1/2" x 1   | 1" sheets of paper  |
| TYPE OF SOIL: (clay, silt,  | sand, decompo  | sed granit   | e, etc.)   | ***  |   |
| Surface: <u>Clargery</u> Sa   | nd, Keddish  | ' Rushou'  | Ury, 1005e (.  | 347  | 780   |
| 1.6 ft. below surface:  | Clausey So   | <u>and, 15(0)</u>  | wn Damr, 1   | Med. Dense   | Ol Droma is b   |
| 3.5 ft. below surface: ft. below surface:   |  |  | DAVE BU  | UWA, DAME, M.  | cd. Duse to L   |
| ft. below surface:  |  |  |  |  |   |
| Depth to Refusal: No Refusal  | efixeat  | Denth to   | Groundwater:   | None enco  | untered   |
| 7   | ו חשוו אובה  | Jnamber:   |  |  | 1   |
| Leach Line Length: 536 Trench Depth: 4 Rock below Pipe: \2  | ft Seepag<br>ft Length<br>in Total D   | ge Pit Type<br>:<br>epth:  | e:ftft   | Number of Pits: _<br>Width:<br>Cap Depth:  | ft  |
| Septic Tank:\500<br>Leach Line Length: 536<br>Trench Depth:4<br>Rock below Pipe: _\2_<br>Other:<br>Proposed Structure: _51he<br>WATER SUPPLY:<br>Source of Potable Water: _   | ft Seepag<br>ft Length<br>in Total D   | ge Pit Type<br>:<br>:epth:<br><u>L</u>   | e:ft   | Number of Pits: _<br>Width:<br>Cap Depth:<br>- & /3.4cm.   | ft<br>ft  |
| Leach Line Length: 536 Trench Depth: 4 Rock below Pipe: 12 Other: 2 Proposed Structure: 516 WATER SUPPLY: Source of Potable Water: 4 I have reviewed this percolation   | ft Seepag<br>ft Length<br>in Total D   | ge Pit Type : lepth: h_  Z-Sii   | E:ft ft f   | Number of Pits: _ Width: Cap Depth:  -   | ft ft ft sparcel and find t   |
| Leach Line Length: 536 Trench Depth: 4 Rock below Pipe: 12 Other: 2 Proposed Structure: 5146 WATER SUPPLY: Source of Potable Water: 4 I have reviewed this percolation data and design to be accurate Registered CE, PE, Geologist, RE  | ft Seepage ft Length in Total Description of the second se | ge Pit Type : epth: h  26511   | Well Pe  | Number of Pits: _ Width: Cap Depth:  | ft<br>ft<br>s parcel and find a<br>eering practice.   |
| Leach Line Length: 536 Trench Depth: 4 Rock below Pipe: 12 Other: 2 Proposed Structure: 5146 WATER SUPPLY: Source of Potable Water: 1 I have reviewed this percolation data and design to be accurate Registered CE, PE, Geologist, RE  | ft Seepage ft Length in Total Description of the second se | ge Pit Type : epth: h  26511   | Well Pe  | Number of Pits: _ Width: Cap Depth:  | ft<br>ft<br>s parcel and find a<br>eering practice.   |
| Leach Line Length: 536 Trench Depth: 4 Rock below Pipe: 12 Other: 2 Proposed Structure: 5146 WATER SUPPLY: Source of Potable Water: 1 I have reviewed this percolation data and design to be accurate Registered CE, PE, Geologist, RE  | ft Seepage ft Length in Total Description of the second in | pe Pit Type  cepth:  pepth:  prof the subsce with state  | Well Pe  | Number of Pits: _ Width: Cap Depth:  | ft<br>ft<br>s parcel and find a<br>eering practice.   |
| Leach Line Length: 536 Trench Depth: 4 Rock below Pipe: 12 Other: Proposed Structure: 516 WATER SUPPLY: Source of Potable Water: 1 I have reviewed this percolation data and design to be accurate Registered CE, PE, Geologist, RE Address: 5741 Poliment Canal San, 6 Approved: Yes No                  | ft Seepage ft Length in Total Description of the second se | ge Pit Type : cepth: cepth: depth: de | Well Personal John Sent Sent Sent Sent Sent Sent Sent Sen  | Number of Pits: _ Width: Cap Depth:  | s parcel and find a eering practice.  |
| Leach Line Length: 536 Trench Depth: 4 Rock below Pipe: 12 Rother: 51hc Proposed Structure: 51hc WATER SUPPLY: Source of Potable Water: 1 I have reviewed this percolation data and design to be accurate Registered CE, PE, Geologist, RE Address: 5741 Polmen Canus Bay, 6 Approved: Yes No Specialist: | ft Seepage ft Length length in Total Description of the second of the se | ge Pit Type :  | Well Personal of the surface sewage dispersion of the surface sewa | Number of Pits: _ Width: Cap Depth: ermit Number: ermit Number: ermit Number: posal system for this ens, and good engin  Date: p Required: Yes | s parcel and find a eering practice.  |
| Leach Line Length: 536 Trench Depth: 4 Rock below Pipe: 12 Other: Proposed Structure: 516 WATER SUPPLY: Source of Potable Water: 1 I have reviewed this percolation data and design to be accurate Registered CE, PE, Geologist, RE Address: 5741 Poliment  | ft Seepage ft Length in Total Description of the second se | ge Pit Type :  | Well Personal Section of the surface sewage dispersonal ocal regulation of the sewage dispersonal ocal regulation of the sewage of the sewage dispersonal ocal regulation of the sewage  | Number of Pits: _ Width: Cap Depth: ermit Number: ermit Number: ermit Number: Date:  | s parcel and find the eering practice.  |



| DEH Control #:   |  |
|------------------|--|
| Date:            |  |
| Activity Code: _ |  |

| WVIRON .   |                         |                                      |                       |                                  | 0.5                  |
|--|-------------------------|--------------------------------------|-----------------------|----------------------------------|----------------------|
| Assessor's Parcel Number:  | 12416039                | 500                                  | Map #                 | Lot #                            | <u> </u>             |
| Site Address <u>5820 以</u>   | · LITAL ROOJ            | \$                                   | Town: <u>Boo</u>      | <u> Sall</u> Zip C               | ode: <u>92003</u>    |
| Owner: <u>Ollan Br</u>   | eze Far                 | 5, 4                                 | Phone:                |                                  |                      |
| Mailing Address: <u>5820</u>   |                         |                                      |                       |                                  |                      |
| Test Test Depth  | Stabilized<br>Rate      | Test<br>Hole #                       | Test Depth            | Stabilized<br>Rate               | Average<br>Perc Rate |
| P1 52.00"  | 88                      | PS                                   | 64.25"                | 136                              |                      |
| PZ 47.50"  | 88                      | PLO                                  | S6.00'                | 25                               | 118.06               |
| P3 60.50"  | 57.33                   |                                      |                       |                                  |                      |
| PU 56.00   | 88                      |                                      |                       |                                  |                      |
| RECOMMENDATIONS: Septic Tank: \( \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ | gal Pump (<br>5ft Seepa | Chamber: <sub>_</sub><br>ge Pit Type | gal                   | Surge Tank:<br>Number of Pits: _ | gal                  |
| Rock below Pipe:\2   | in Total D              | epth:                                | ft (                  | Cap Depth:                       | ft                   |
| Other:   |                         |                                      |                       |                                  |                      |
| Proposed Structure: Sing   | K family 1              | 2cs1Dent                             | 10 2-3                | . 13drm                          |                      |
| WATER SUPPLY:<br>Source of Potable Water: _                          |                         |                                      | Well Pe               | ermit Number:                    |                      |
| have reviewed this percolation<br>data and design to be accurate     |                         |                                      |                       |                                  |                      |
| Registered CE, PE, Geologist, R                                      |                         |                                      |                       |                                  | ,                    |
| Address: 5741 Polmen<br>CANLS BAD,                                   | CA. GZOK                | Phone:                               | 760-438-3             | / J Date: _                      | 5-6-19               |
|  | FO                      | R DEPARTI                            | IENT USE ONLY         |                                  |                      |
| Approved: Yes No   |                         |                                      |                       | o Required: Yes                  | No                   |
| Specialist:<br>Building Plan Review:                                 |                         |                                      | <br>Date <sup>,</sup> |                                  |                      |
| Grading Inspection:  |                         |                                      | Date:                 |                                  |                      |
| Grading Inspection:<br>Water Sample Analysis Re                      | esults:                 |                                      | Date:                 |                                  |                      |
| ,  |                         |                                      |                       |                                  |                      |



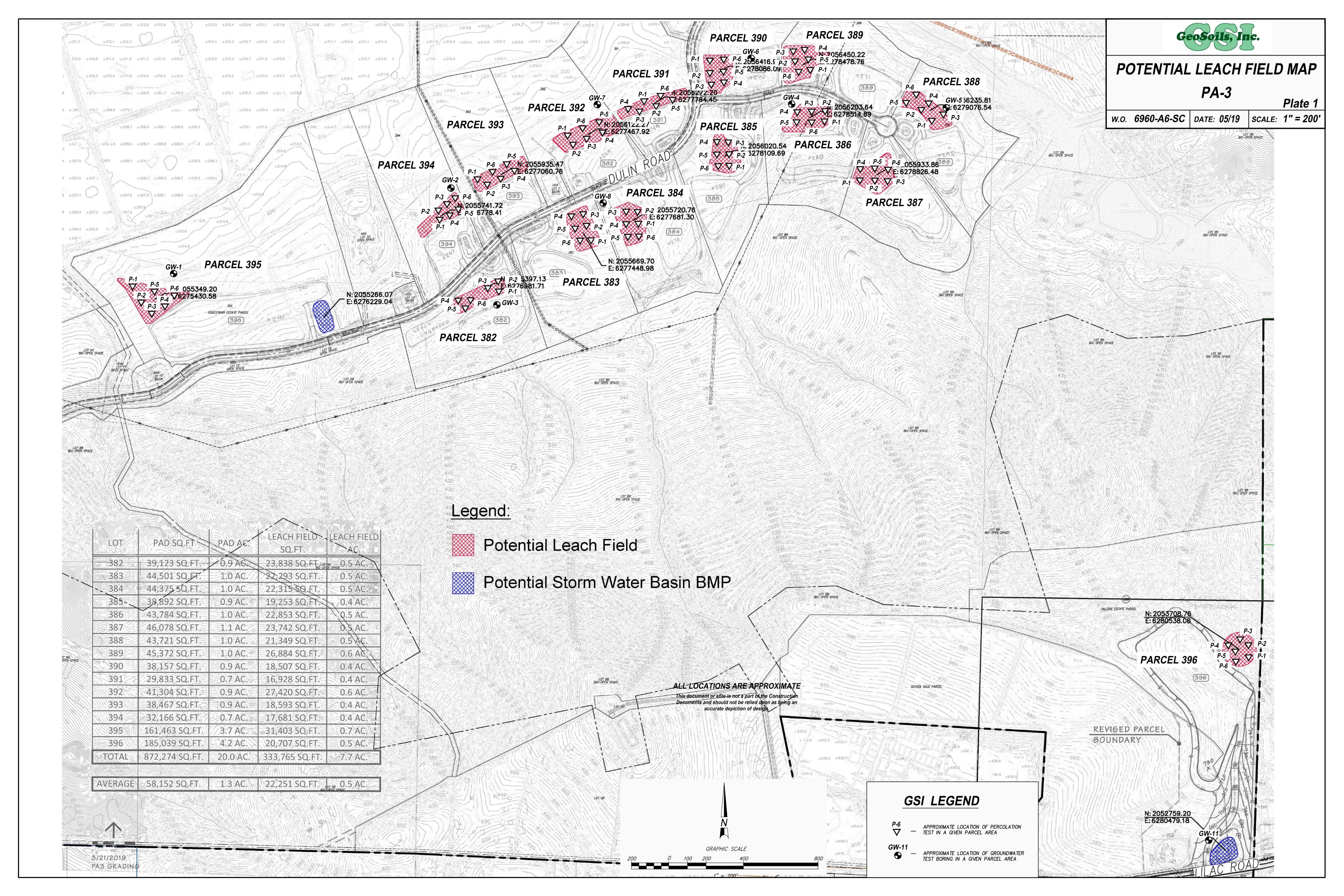
| DEH Control #: |  |
|----------------|--|
| Date:          |  |
| Activity Code: |  |

| OFTAVIRON  | inter.  | •  |   |                                     |  | •                                   |
|--|---|--|---|-------------------------------------|--|-------------------------------------|
|  | 's Parcel Number:                                       |  |   |                                     |  |                                     |
| Site Addr  | ess <u>5820 W</u>                                       | : LIVAL RO                               | ud  | Town: <u>Bon</u>                    | SallZip C  | Code: <u>92003</u>                  |
| Owner: _   | Ocean Bre   | le Farms,                                | ULC                                       | Phone:                              |  |                                     |
| Mailing A  | ddress: <u>5820</u>                                     | W. LIIOC R                               | oad, Bo                                   | onsall                              |  |                                     |
| Test<br>Hole #   | Test Depth  | Stabilized<br>Rate                       | Test<br>Hole #                            | Test Depth                          | Stabilized<br>Rate   | Average<br>Perc Rate                |
| 19   | 61.00"  | 83.34                                    | PS.                                       | 62.00"                              | 152  |                                     |
| PZ   | (60.00"   | 152                                      | Plo                                       | 61,00"                              | 156  | 141.22                              |
| P3   | 61.50"  | 152                                      |   |                                     |  |                                     |
| PM   | 61.50"  | 152                                      |   |                                     |  | *                                   |
| Depth to  RECOM Septic Taleach Li Trench E Rock bel Other: | MENDATIONS: ank: \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ | gal Pump Cft Seepagft Length:in Total De | Depth to Chamber: _ e Pit Type epth: m/m, | Groundwater:  gal S  ft V  RECOMEND | None en  Surge Tank:  Number of Pits:  Vidth:  Cap Depth:  ADDITIONA | countered  gal  ft  ft  ft  TESTIME |
| <b>WATER</b><br>Source o                                   | d Structure:  |  | f   | Well Pe                             | rmit Number: _   |                                     |
|  | iewed this percolation<br>design to be accurate         |  |   |                                     |  |                                     |
|  | d CE, PE, Geologist, RE                                 |  |   |                                     |  | 1,9                                 |
| Address: _   | 5741 Palmen<br>Canus Bau, C                             | 2 Nag Ste.<br>A. 92610<br>FOR            | Phone:                                    | 760-438-                            | 3/5 5 Date:  | 5-6-11                              |
| Approve  | d: Yes No<br>st:  | Date:                                    | بالمواقلة سالها سيوات الورسون و           | _ Final Map                         | Required: Yes  |                                     |
| Buildina   | Plan Review:  |  |   |                                     |  |                                     |
| Building Plan Review:<br>Grading Inspection:               |   |  |   | - ·                                 |  |                                     |
| Grading Inspection:<br>Water Sample Analysis Results: `    |   |  |   | Date:                               |  |                                     |



| DEH Control #: | ······································ |
|----------------|--|
| Date:          |  |
| Activity Code: |  |

| " (WAIROW   |   |  |                           | •                     |  | <u> </u>              |  |
|---|---|--|---------------------------|-----------------------|--|-----------------------|--|
| \ssessor'   | s Parcel Number:                                | 1241503                                      | 3500                      | Map #                 | Lot #                                      | <u> 15-9</u>          |  |
| Site Addre  | ess <u>5820 w</u>                               | ; Lilal Road                                 |                           | Town: <u>Bo</u>       | <u> Call</u> Zip C                         | ode: <u>92063</u>     |  |
| Owner:  | Ocean Bree                                      | ze Farms                                     | · NC                      | Phone:                |  |                       |  |
|   | ddress: <u>5820</u>                             | _  |                           |                       |  |                       |  |
| Took  | Test Depth                                      | Stabilized                                   | Test                      | Test Depth            | Stabilized                                 |                       |  |
| Test<br>Hole #                                      | rest beptil                                     | Rate   | Hole #                    | rest beptii           | Rate                                       | Perc Rate             |  |
| PI  | (\$.00"   | 0.86   |                           |                       |  |                       |  |
| Pl<br>Pz  | 57.00"  | 2.40   |                           |                       |  | 1,38                  |  |
| P3  | 57.00"  | 0.56   |                           |                       |  |                       |  |
| PH  | 63.50   | 1.77   |                           |                       |  |                       |  |
| 'ertical see  | epage pits: Provide soils                       | log, uniformity/cap                          | pacity test res           | ults, and calculation | s on separate 8-1/2" x 1                   | 1" sheets of paper    |  |
| Depth to RECOMI Septic Ta Leach Li Trench E         | t. below surface:                               | <u>Pofusal</u> _gal Pump(ft Seepagft Length: | Chamber: _<br>ge Pit Type | gal<br>::<br>ft       | Surge Tank:<br>Number of Pits: _<br>Width: | gal<br><br>ft         |  |
| Other:  |   |  |                           |                       |  |                       |  |
| ropose  | d Structure:BAM                                 | -n/shop                                      | 1 Both                    | Arthur Day Soft Ha    | SE.  |                       |  |
|   | SUPPLY:<br>of Potable Water: _                  |  |                           | \ <b>\</b> \all F     | Parmit Number:                             |                       |  |
| have rev  | iewed this percolation<br>design to be accurate | n data and desigr                            | of the subs               | surface sewage dis    | sposal system for thi                      | s parcel and find the |  |
| tegistered  | I CE, PE, Geologist, RI                         | EHS:   |                           |                       |  | pA.                   |  |
| ddress: _   | 5741 Polmen<br>Canlsbaw, C                      | May 5767                                     | Phone:                    | 760-438-              | 3/55 Date: _                               | 5-6-19                |  |
|   |   | FOI  | R DEPAR IM                | ENT USE ONLY          |  |                       |  |
| Approved: Yes No Date:<br>Specialist:               |   |  |                           |                       |  |                       |  |
| Building  | Plan Review:                                    |  | Date:                     | Date:                 |  |                       |  |
| Grading Inspection:  Water Sample Analysis Results: |   |  |                           | Date: _               | Date:                                      |                       |  |
| Nater Ša  | ample Analysis Re                               | sults: `                                     | Date:                     | Date:                 |  |                       |  |





# GSI LEGEND

 $\nabla$ - APPROXIMATE LOCATION OF PERCOLATION TEST IN A GIVEN

APPROXIMATE LOCATION OF GROUNDWATER TEST BORING IN A GIVEN PARCEL AREA

APPROXIMATE LOCATION OF MOBILE HOME RESIDENTIAL, POTENTIAL LEACH FIELD AREA

R8 — APPROXIMATE LOCATION OF MOBILE HOME RESIDENTIAL, POTENTIAL LEACH FIELD AREA

B9 — APPROXIMATE LOCATION OF BARN/ SHOP LEACH FIELD

### **BUILDING LEGEND:**

**FWR** FOWLING PENS WITH ROOF A ARENA OR EXERCISER B1 SHOP/ EQUIPMENT STORAGE **LF** LEACH FIELD **M** MOBILE HOME **B2** MARE BARN P THERAPY POOL

**PS** PASTURE SHED

PWR PENS WITH ROOF

**Q** QUARANTINE PEN

**ST** SEPTIC TANK

**R** RESIDENCE BUILDING

B3 LAY UP BARN REHAB **B7** FOALING BARN

**B8** BREEDING BARN **B9** SHOP **EH** RELOCATED EMPLOYEE HOUSE

### **BUILDING STATUS LEGEND:**

(AB) AS-BUILT RECENTLY BUILT WITHOUT PRIOR PERMIT

(E) EXISTING EXISTING BUILDINGS/STRUCTURES WITH PERMIT (P) PROPOSED PROPOSED NEW BUILDINGS/STRUCTURES REQUIRE BUILDING PERMIT

### LEGEND:

1 POWER POLE (EXIST.) 2 DIRT ROAD (EXIST.)

5 WOOD FENCE (EXIST.)

6 WOOD FENCE (PROPOSED)

### 3 ASPHALT ROAD (EXIST.) 4 LIGHT (EXIST.)

10 TANK (EXIST.)

# 8 DIRT ROAD (PROPOSED) 9 ASPHALT ROAD (PROPOSED)

7 ELECTRIC TRANSFORMER (EXIST.)

11 WATER LINE (EXIST.)

### BASE MAP FROM:

# MAJOR USE PERMIT <u>5615</u> EQUESTRIAN CENTER OCEAN BREEZE RANCH



SHEET 2 OF 8



POTENTIAL LEACH FIELD MAP BUILDING SITES R7, R8, B9
Plate 2

W.O. 6960-A6-SC | DATE: 05/19 | SCALE: 1" = 200"